BUILDING *on* STRENGTH

REPORT OF THE SIAST REVIEW COMMITTEE

Saskatchewan
Post-Secondary
Education and
Skills Training

100-04217/

Message from the Minister

I am pleased to release the SIAST Committee of Review report, *Building on Strength,* and to outline the Government's expectations for the recommendations in the report. The report provides a long-term direction for SIAST. It will help position SIAST to meet the changing and future needs of Saskatchewan students, our people and the labour market.

I endorse the report's recommendations, and I ask SIAST and Post-Secondary Education and Skills Training to incorporate the recommendations into their planning and reporting processes. To follow their progress, I will ask for an annual progress report from each organization.

The SIAST Review is an important contribution to the development of a comprehensive, strategic plan for the post-secondary education, training and employment services sector. The Department of Post-Secondary Education and Skills Training is working with SIAST and other sector partners to plan for the future. We are working together to improve our labour market planning; to improve Saskatchewan people's access to the higher education they need to succeed; and, to create opportunities for employment and careers for young people in particular, right here in Saskatchewan.

SIAST has a crucial role to play in meeting the education and training needs of individuals and communities, employers and industry, and in contributing to the economic and social well-being of the Province.

The 1999 SIAST Review was a regular review of SIAST's mandate as required by *The Saskatchewan Institute of Applied Science and Technology Act*. The review process was a joint effort between senior representatives from SIAST and Saskatchewan Post-Secondary Education and Skills Training. The review committee focussed on how well SIAST is positioned to meet the challenges of tomorrow, and what changes are needed for SIAST to continue to effectively respond to the needs of Saskatchewan students and the labour market.

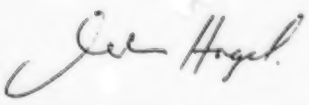
Stakeholder involvement was a critical part of the review process. The Committee consulted with SIAST faculty, staff and students, as well as other training institutions, industry and government.

The report shows that SIAST has been on the right track and is meeting the needs of learners. I am confident that the report's recommendations will help to build on these strengths. The recommendations reflect Government's priorities for SIAST. These priorities include: increasing access to education and training, increased participation and success for Aboriginal students, increased use of technology to enhance learning, and improving responsiveness to the needs of students and Saskatchewan's labour market.

The report will complement the findings of several other evaluations and reports the Department is currently working on. Those include an evaluation of the *Saskatchewan Training Strategy*, the Regional Colleges Review, the Labour Market Trends Report, and the results of the public consultations on financial access. Implementation of the review committee's recommendations will also support Saskatchewan's economic development strategy, *Partnerships for Prosperity*, and the provincial efforts to redesign social assistance, our *Building Independence* strategy.

This review demonstrates how productive the cooperative spirit between SIAST and the Department of Post-Secondary Education and Skills Training can be. Partnerships are essential in the post-secondary education sector, which also includes universities, Regional Colleges, First Nations and Métis institutions, Apprenticeship and Trade Certification Commission, industry, private vocational schools, and community organizations.

I thank the review committee members for their efforts throughout the review and for producing this report, which will be a valuable planning tool for SIAST and my Department. My thanks to everyone who participated in the review.



The Honourable Glenn Hagel
Minister of Post-Secondary Education and Skills Training

REPORT OF THE SIAST COMMITTEE OF REVIEW

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LETTER OF TRANSMITTAL

March 10, 2000

The Honourable Glenn Hagel
Minister of Post-Secondary Education and Skills Training
Room 348, Legislative Building
Regina, Saskatchewan
S4S 0B3

Dear Minister Hagel:

The SIAST Committee of Review is pleased to present its report and recommendations to you.

The Review Committee members believe SIAST plays a very important role in providing access to post-secondary education and training and in ensuring that the province has a well qualified labour force with skills relevant to Saskatchewan jobs. Our recommendations are directed towards enhancing this role and SIAST's future development as an accessible, learner-centred institution that is flexible and responsive in serving the needs of Saskatchewan people, industry and communities

Our recommendations point to long-term directions that SIAST should address over the next five or more years. We have not made any assumptions in the review about new funding. Obviously, when there are more resources, changes can be implemented a lot more quickly. Still, no matter what the financial scenario looks like, SIAST has the latitude to make many choices and can make progress in achieving new goals.

The review process in our opinion has strengthened working relationships and understanding between SIAST and the Department of Post-Secondary Education and Skills Training. We trust that our recommendations will prove to be useful in encouraging further collaboration between SIAST and the provincial government, as well as with the universities, regional colleges, employers, workers, industry groups, First Nations and Métis institutions and other organizations.

Thank you for the opportunity to serve on the Review Committee and for the confidence placed in us.

Yours truly,

Prof. Paul J. Dudgeon
Chair, SIAST Board

Lily Stonehouse (Chair)
Post-Secondary Education
and Skills Training

Dr. Art Knight
President, SIAST

Shelley Hoover
Post-Secondary Education

Donna Krawetz
Post-Secondary Education

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ACKNOWLEDGEMENTS

The 1999 SIAST Committee of Review was made up of the following individuals:

- Lily Stonehouse, Assistant Deputy Minister, Post-Secondary Education and Skills Training, and chairperson of the committee;
- Paul J. Dudgeon, Chairperson of the Board of Directors, Saskatchewan Institute of Applied Science and Technology, and Professor of Administration in the Saskatchewan Indian Federated College, School of Business and Public Administration at the University of Regina;
- Dr. Art Knight, President of Saskatchewan Institute of Applied Science and Technology;
- Shelley Hoover, Executive Director, Institutions Branch, Post-Secondary Education and Skills Training;
- Donna Krawetz, Executive Director, Special Projects, Post-Secondary Education and Skills Training.

The 1999 SIAST Committee of Review acknowledges the people and organizations who submitted written briefs or met with the committee. We also greatly appreciated the involvement of the SIAST students, faculty, staff, administration and Board of Directors in the review process.

The committee gratefully acknowledges the assistance of Darlene Heska-Willard, PSEST, and Glenys Hanson, SIAST, in providing research and support to the project; and to Brenda Assman, Judy Kobsar, Debbie Rieger, Karen Middleton and Gaile Buckley for clerical support.

EXECUTIVE SUMMARY

The 1999 SIAST Review Committee was appointed by the Minister of Post-Secondary Education and Skills Training to provide recommendations on the future mandate and positioning of the Saskatchewan Institute of Applied Science and Technology (SIAST) to meet emerging labour market needs and to support the goals of the Saskatchewan Training Strategy. *The Saskatchewan Institute of Applied Science and Technology Act* requires that a committee be appointed at least once every five years to review and report on the mandate of SIAST and any other matters prescribed by the Lieutenant Governor in Council.

The Review Committee was established with senior representatives from SIAST and the Department of Post-Secondary Education and Skills Training to engender shared understanding of expectations and long-term directions for the institution over the next five years or more. It is intended that the results of the review be incorporated into SIAST's strategic planning and the development of an accountability and performance management framework with the department.

The Review Committee focused attention on future trends and developments in Saskatchewan and elsewhere that are shaping the environment in which SIAST operates and the expectations of learners, employers and communities for the institution. As Saskatchewan's pre-eminent institution for technical education and training, SIAST will play a critical role in the future in ensuring that people in the province have access to training opportunities that match skill demands in the job market.

SIAST's current positioning was assessed in terms of the organization's strengths and the issues it is facing in meeting the challenges of the future. The Review Committee concluded that a number of changes initiated by SIAST, such as its new provincial organizational structure and the introduction of plans for technology-enhanced learning and curriculum renewal, are important steps for SIAST in continuing to fulfill its role as the province's leading agency for technical education and training. The high calibre of SIAST graduates and their success in finding employment are testimony to the efforts of SIAST faculty and staff to provide responsive and relevant programs and services.

At the same time, SIAST is facing serious pressures to expand its program array and training opportunities for learners with diverse needs. The growing complexity of jobs and the depth of knowledge required by many technical and technological occupations are challenges to SIAST's continuing ability to meet labour market demands and support economic development. With increasing skill requirements for employment, SIAST is experiencing high demands from learners for education and training that will enable them to meet their career goals.

In formulating its recommendations for SIAST's strategic directions, the Review Committee took into account the provincial need to develop an integrated and coherent education and training system where organizations work together to ensure complementary functions and to maximize learning opportunities and use of resources. Several recommendations address this challenge and contribute to strategic planning for the post-secondary sector as a whole.

Based on the analysis of SIAST's current organizational positioning in relation to future trends and public expectations, the Review Committee's recommendations for SIAST's strategic directions are focused on four overriding priorities as follows:

- **An Appropriate and Progressive Mandate**

  An appropriate and progressive mandate for SIAST will enable the institution to contribute fully to Saskatchewan's future economic and social development and to a coherent and coordinated post-secondary system. SIAST's responsibilities for programs and services should evolve to fit new circumstances and needs in the province.

- **A Commitment to Accessibility**

  A commitment to enhancing access to SIAST programs and services for all people throughout Saskatchewan must be at the centre of SIAST's decision-making, taking into account the need to balance accessibility with quality, resources and labour market demands.

- **Responsiveness to the Labour Market**

  SIAST must address priority skills needs within Saskatchewan's labour market and develop extensive linkages with employers to respond to emerging skills requirements and to develop innovative and flexible ways of meeting these needs.

- **Organizational Effectiveness**

  Having become a unified provincial institution, SIAST must revitalize organizational policies and processes to be effective in working within its new structure. SIAST's vision, planning, communications, human resource management, and relationships with other organizations are aspects of its effectiveness as a provincial institution which need to be addressed.

In order to achieve these priorities, the Review Committee offers the following specific recommendations:

1. AN APPROPRIATE AND PROGRESSIVE MANDATE

Certificate and Diploma Programs

1.1 The Review Committee recommends that SIAST retain its current mandate as the province's primary public institution for delivery of technical education and training and continue to develop its role in curriculum development, certification of training, and brokerage of programs from other technical institutions, colleges or industry and professional bodies.

Applied Research and Technology Transfer

1.2 The Review Committee recommends that SIAST's involvement in applied research and technology transfer be recognized within its mandate. This recognition should make it clear that applied research and technology transfer are to be carried out at the request of industry and with industry support for projects or services. In the future, SIAST should pursue an exploratory approach with the universities and the Saskatchewan Research Council to identify complementary roles and linkages, possibly through a pilot project that takes advantage of the respective strengths and areas of expertise of these organizations.

Advanced Technical Education Credentials

1.3.1 The Review Committee recommends that SIAST enhance options for Saskatchewan people to attain advanced technical education credentials through collaboration with the province's universities and guided by the following principles:

- ***Programs leading to advanced credentials should be based on clearly identified needs in the labour market;***
- ***Industry and employers must be involved as active partners, for example, in committing to provide work experience for students, in demonstrating hiring intentions for graduates, and in participating in program development and design;***
- ***Programs should not result in "dead ends" for students where credentials are not recognized by post-secondary institutions or professional bodies; and***
- ***Programs should take advantage of the existing strengths and locations of institutions. For example, the new location of Wascana Campus adjacent to the University of Regina offers opportunities to better articulate and integrate programs.***

1.3.2 This collaboration should be facilitated by the establishment of a committee of senior representatives from the universities, SIAST and the Department of Post-Secondary Education and Skills Training to identify and develop system-wide strategies for enhancing options and career paths for students in technical fields of study.

1.3.3 It is further recommended that SIAST pursue an agreement with the University of Saskatchewan, similar to the one recently signed with the University of Regina, to collaborate in areas such as credit transfer between diploma and degree programs.

Credit Transfer and Prior Learning Assessment and Recognition (PLAR)

1.4.1 The Review Committee recommends that SIAST and the Department of Post-Secondary Education and Skills Training cooperate with other post-secondary institutions in developing a provincial vision and action plan for increasing credit transfer on a system-wide basis. It is further recommended that deans and faculty at SIAST and the universities increase their collaboration at the program level to enhance credit transfer.

1.4.2 Within SIAST, the institution needs to ensure the transferability of applied and advanced certificates in certificate and diploma programs, and to work towards mobility and career laddering for students from private vocational schools.

1.4.3 With respect to PLAR, it is recommended that SIAST continue to improve its internal processes and to collaborate with the Department of Post-Secondary Education and Skills Training, other post-secondary institutions and industry in developing a provincial vision and action plan for increasing prior learning assessment and recognition on a system-wide basis.

Extension University Programming

1.5 The Review Committee recommends that SIAST continue to have provision in its mandate to broker university programming by agreement with a university and that SIAST and the University of Saskatchewan review the current agreement for extension programming to ensure an appropriate distribution of costs and revenues.

SIAST-University Collaboration

1.6 The Review Committee recommends that SIAST and the two universities give increased priority to collaboration and partnerships to enhance programs and services, access and mobility for students, and use of resources.

Basic Education

1.7.1 The Review Committee recommends that SIAST retain its current mandate for basic education and related programs and services and ensure that this function is fully integrated and supported within the institution by making the following improvements:

- *Develop bridging strategies to support transitions from basic education to skills training and certificate and diploma programs for learners who are seeking to become better qualified for jobs;*
- *Incorporate employability skills into the basic education program within curriculum and instruction for academic subjects, and as a separate study unit for students who require these skills to augment their current training or work experience; and*
- *Increase student retention rates through student services, assessment and counseling, appropriate instructional strategies suited to learner needs, and partnerships with First Nations and Métis institutions, K-12 education, and community organizations.*

1.7.2 The review of funding for training and employment services currently underway should take into account the need to support the integration of basic education within SIAST. Currently, basic education is funded as a separate program rather than through SIAST's base operating grant.

Youth Training and Employment

1.8 The Review Committee recommends that SIAST work with the K-12 education system, the Apprenticeship and Trade Certification Commission, First Nations and Métis organizations, industry and other agencies to address the needs of youth who are unemployed or are seeking training and work experience to enter the labour force. The Department of Post-Secondary Education and Skills Training should facilitate partnerships and forums to improve training and employment options for youth.

2. A COMMITMENT TO ACCESSIBILITY

Expectations for Accessibility

2.1 The Review Committee recommends that SIAST and the Department of Post-Secondary Education and Skills Training jointly develop expectations for increasing access to SIAST programs in future years, taking into account the interplay of accessibility with labour market demands, the quality of programs and instruction, and the availability and use of resources. These expectations should be built into SIAST's business plan and performance monitoring.

Learner-Centred Orientation

2.2 The Review Committee recommends that SIAST embody a commitment to learning within its vision, programs and operations and address the implications of a learner-centred orientation for the organization, with respect to issues such as methods for recognizing prior learning, instructional approaches, resources to support learning, hours of operation, and formats for delivery.

Technology-Enhanced Learning

2.3.1 The Review Committee recommends SIAST continue to give high priority to implementing its virtual campus plan, as part of the provincial technology-enhanced learning strategy and in collaboration with other post-secondary institutions in the province, to increase accessibility, quality, student retention, and responsiveness to the needs of learners, employers and communities.

2.3.2 It is also recommended that SIAST's virtual campus plan address the role of SIAST in providing support for learners who may wish to access technology-enhanced programs from other institutions, and in acting as a "clearing house" of information and advice about the thousands of on-line options that learners and employers could access. Opportunities to broker programs in Saskatchewan through partnerships with out-of-province institutions should also be pursued. SIAST should develop these activities in collaboration with other post-secondary institutions in the province, institutions within Western Canada, and in other jurisdictions where appropriate.

Multi-Site Delivery

2.4 The Review Committee recommends that SIAST enhance multi-site delivery of its programs and services throughout the province by maximizing delivery of courses and programs where people and jobs are located and where it is feasible considering the amount of student demand and the equipment and facilities required for delivery. It should be understood within SIAST that multi-site delivery is part of the core business of every program area and includes delivery anywhere in the province outside of a program's home location (i.e. off-campus in urban, rural and northern areas).

SIAST and Regional Colleges

2.5 The Review Committee recommends that in order to enhance multi-site delivery in rural and northern areas, SIAST and the regional colleges revise their existing protocol agreement for brokerage of programs. A new agreement should:

- ***Establish a formal process for SIAST and the regional colleges to coordinate and integrate their needs assessment processes and jointly plan how identified needs can be addressed;***
- ***Clarify for regional colleges points of contact and channels of communication within the new SIAST organizational structure;***
- ***Provide ways for regional colleges to have input into the design, evaluation and updating of curriculum;***
- ***Identify appropriate and reasonable timelines, to be determined mutually by SIAST and the regional colleges, for SIAST to respond to requests from regional colleges;***
- ***Recognize that regional colleges may seek to broker programs from institutions other than SIAST, in addition to discussing their requirements with SIAST and giving SIAST an opportunity to respond before choosing an alternative provider;***
- ***Include avenues for SIAST and regional colleges to work together in making the best use of technology-enhanced learning and supporting learners at a distance;***
- ***Clarify responsibilities for students, both legal and programmatic;***
- ***Encourage cooperation between SIAST and the regional colleges in providing student services at the local level; and***
- ***Continue to require SIAST and regional colleges to notify each other in identifying and responding to training needs in their respective service areas.***

First Nations and Métis Education and Training

2.6 The Review Committee recommends that SIAST:

- ***2.6.1 Revise its current federation agreement with the Dumont Technical Institute to improve communication between the two organizations, build in an evaluation component, and encourage flexibility in program delivery and staffing to ensure student success (e.g. individual needs, content, time frame, delivery mode, appropriate assessment and screening of students).***

- *2.6.2 Develop a new formalized arrangement with the Saskatchewan Indian Institute of Technologies (SIIT) that recognizes the institute's growth and evolution and includes mechanisms for credit transfer and greater planning and coordination of training, to avoid unnecessary duplication and recognize SIIT's role in programs where a significant First Nations perspective is important.*

- *2.6.3 Develop a comprehensive strategy to improve responsiveness to the needs of First Nations and Métis students attending SIAST programs. The strategy should focus on achieving a representative student body and equity of outcomes for First Nations and Métis students across all technical fields. Given SIAST's province-wide mandate with multi-site delivery, First Nations and Métis representation should be considered in relation to the provincial and regional representation of First Nations and Métis peoples in the working age population.*

Education Equity

2.7 The Review Committee recommends that SIAST adopt the Equity Policy Framework developed as part of the Saskatchewan Training Strategy and address gaps in SIAST's current equity initiatives, including the implementation of employment equity. The provincial Office of Disability Issues and the Department of Post-Secondary Education and Skills Training should ensure that SIAST is involved in the Disability Action Plan and implementation of the agreement on Employability Assistance for People with Disabilities.

3. RESPONSIVENESS TO THE LABOUR MARKET

Program Renewal

3.1.1 The Review Committee recommends that SIAST maintain a program array that reflects the breadth and diversity of needs for technical skills and knowledge among private and public employers in Saskatchewan. In recognition that there are typically many more demands than can be met with the available resources, SIAST and the Department of Post-Secondary Education and Skills Training need to determine annually, through the business planning process, the program array that can be reasonably offered with funding from the province's operating grant and tuition fees. Decisions about this "core" programming should be guided by the following priority areas that SIAST's technical education and training is expected to address:

- *Key growth sectors of the economy that are generating new wealth and jobs;*
- *Sustained demand for replacement workers within the existing labour force; and*
- *Public and community services that could be negatively affected by skills deficiencies or shortages.*

3.1.2 SIAST should continue to pursue innovative partnerships or strategies that can help extend its ability to offer a comprehensive program array linked to the labour market without SIAST having to develop every new program on its own. These include, for example, brokerage and licensing arrangements with other post-secondary institutions,

partnerships with employers to incorporate industry-sponsored training, and joint development of programs with partner institutions or agencies.

3.1.3 SIAST's new curriculum model offers future opportunities to realize some efficiencies in the development of new programs. In the new model, distinct stand-alone units of instruction may be used for credit towards several different program credentials.

Extension Policy

3.2.1 The Review Committee recommends that SIAST develop a fair and consistent policy for pricing extension activity that distinguishes core programs that should be available at a province-wide tuition fee, either on or off-campus, and other market-driven or industry training that should be offered on a cost-recovery basis. Consultation with regional colleges in developing the policy is recommended since the regional colleges are the primary delivery agents for SIAST's off-campus programs in rural and northern areas.

3.2.2 Because the policy will define those SIAST activities to be subsidized by provincial funding, it should be submitted to the Minister of Post-Secondary Education and Skills Training for approval. A timeline of implementation in the 2001-02 academic year is further recommended.

Facilities and Equipment

3.3 The Review Committee recommends that the Department of Post-Secondary Education and Skills Training and the Department of Finance review current arrangements for supporting SIAST's capital and equipment with a view to establishing a planned renewal and a funding allocation for this purpose. This examination should also consider the approval process for SIAST's expenditures on capital and equipment. SIAST's annual business plan should include a capital plan to identify the requirements to implement program plans.

Labour Market Development Planning

3.4.1 The Review Committee recommends that SIAST, along with other partners, and with leadership from the department, develop processes at the provincial and sectoral levels to undertake labour market development planning and needs assessment, including forecasting of occupational and skills requirements, identifying emergent training demands, and creating potential solutions to meet the pressures.

The Department of Post-Secondary Education and Skills Training should take the lead in facilitating this process and involving other partners such as industry, First Nations and Métis organizations, regional colleges, the universities, the Apprenticeship and Trade Certification Commission, Human Resources Development Canada and other provincial departments. The feasibility and usefulness of conducting in-depth needs assessments in a few targeted industry sectors each year could be tested on a pilot basis. A sectoral

approach to labour market development and training needs assessment should be linked to industry sectors within the province's economic development strategy.

Linkages to Major Employers, Industry Organizations and Economic Development Initiatives

3.5.1 The Review Committee recommends that SIAST develop increased linkages with major employers and industry organizations at a senior level to provide forums for information sharing, discussion of labour market and training issues, and avenues for cooperation. Provincial organizations such as the Crown Investments Corporation, the Canadian Federation of Independent Business, the Saskatchewan Chamber of Commerce, and the Saskatchewan Labour Force Development Board should be consulted to determine their preferences for regular liaison with SIAST Board members and senior managers.

3.5.2 The Department of Post-Secondary Education and Skills Training should facilitate similar linkages between SIAST and key provincial government departments with responsibility for employment or industry sectors that have significant skills training needs, such as the health sector. Liaison with the Department of Economic and Cooperative Development at the senior level is particularly important to coordinate SIAST activities with provincial economic development initiatives.

3.5.3 The Review Committee recommends that SIAST work closely with the new Apprenticeship and Trade Certification Commission and Trade Boards to develop and deliver institutional training that supports the apprenticeship system in moving towards greater industry involvement and more innovative and decentralized delivery. A new protocol agreement between SIAST and the Apprenticeship and Trade Certification Commission should be developed to establish clear roles and responsibilities and lines of communication for an effective partnership.

SIAST and Agricultural Programming

3.6 The Review Committee recommends that SIAST participate in processes to better coordinate efforts of the many agencies and institutions involved in training within the agricultural sector serving farm families and other specialized workers, and to address gaps in current responses at provincial and regional levels. The Departments of Post-Secondary Education and Skills Training and Agriculture and Food should take the lead in facilitating this process.

4. ORGANIZATIONAL EFFECTIVENESS

SIAST Vision and Business Plan

4.1 The Review Committee recommends that SIAST integrate recommendations from this report into its vision and multi-year business planning, and develop appropriate performance indicators to monitor and report on progress in achieving its goals and implementing recommendations of the review. SIAST is encouraged to build on the

process that was implemented during the organizational restructuring process to involve employees in these activities.

Government-SIAST Relationships

4.2 The Review Committee recommends that SIAST and the Department of Post-Secondary Education and Skills Training establish a renewed relationship based on accountability and performance management. SIAST's business plan should be the foundation for developing a relationship based on clear expectations with a focus on outcomes. SIAST and the Department of Post-Secondary Education and Skills Training should work together closely in developing an accountability and performance management framework, and in negotiating expected outcomes on an annual basis as SIAST updates its business plan. The recommendations of this review should also be integrated into the department's strategic plan.

Human Resources and Organizational Development

4.3 The Review Committee recommends that SIAST develop enhanced opportunities for professional development for SIAST faculty and staff to maintain the currency of their knowledge and skills in relation to changes in technology and the workplace. Further, it is recommended that SIAST continue to involve employees in planning and decision-making about SIAST's ongoing development and the changes needed to respond to emerging demands for education and training in Saskatchewan.

Communications with Students

4.4 The Review Committee recommends that SIAST foster student input and involvement in SIAST's future development and ongoing operations. Student participation and influence could be strengthened by an institute-wide mechanism for students to represent their views.

Marketing and Communications with the Public

4.5 The Review Committee recommends that SIAST continue to implement the communications and marketing plan developed by the SIAST Board. In addition, the Review Committee recommends that SIAST, the regional colleges, the Apprenticeship and Trade Certification Commission, and the Department of Post-Secondary Education and Skills Training coordinate their communication strategies to raise awareness of the value of post-secondary education and training and career opportunities in technical and trades occupations, and to ensure consistency of messages and enhanced visibility for all parties.

REPORT OF THE SIAST REVIEW COMMITTEE

CHAPTER 1: INTRODUCTION

1. Purpose of the Review

The 1999 SIAST Review Committee was appointed by the Minister of Post-Secondary Education and Skills Training to provide recommendations on SIAST's future mandate and positioning to meet emerging labour market needs and to support the goals of the Saskatchewan Training Strategy. *The Saskatchewan Institute of Applied Science and Technology Act* requires that a committee be appointed at least once every five years to review and report on the mandate of SIAST and any other matters prescribed by the Lieutenant Governor in Council.

The review was structured to build on the organizational and program changes SIAST has implemented in the last few years, the extensive public consultation preceding these changes, and the introduction of the Saskatchewan Training Strategy in 1997. The membership of the Review Committee included senior representatives from SIAST and the Department of Post-Secondary Education and Skills Training. The review was aimed at developing a shared understanding of the institution's strategic directions, public policy goals and expectations for SIAST.

The review's recommendations are intended to provide the broad public policy context and directions for SIAST's future institutional planning. As such, the Review Committee did not attempt to prescribe a comprehensive blueprint, vision or detailed action plan to be adopted by the organization. It is the responsibility of SIAST to develop these plans which must come from within the organization to ensure commitment and practical grounding in the experience of SIAST board members, managers, faculty and staff, union representatives and students.

The Terms of Reference for the Review are included in Appendix A.

2. The Review Process

To ensure that its deliberations were well informed, the Review Committee solicited the views of all of the major partners in SIAST's future development. In addition, the committee undertook a number of research projects on selected topics.

Three one-day consultation workshops were held including a session with SIAST board members, senior SIAST managers and department staff, involving a total of 45 participants. Similar workshops were held with SIAST faculty and staff, union representatives and students, involving a total of over 260 participants. The workshops were organized to seek input on the major challenges and opportunities facing SIAST and possibilities for the future. Participants were provided with a background document prior to attending the workshops, outlining trends affecting SIAST and the organization's current mandate and activities.

The Review Committee also sought the views of stakeholders outside of SIAST including: industry, professional and business organizations, First Nations and Métis institutions, municipalities, health districts, K-12 education, the universities, regional colleges, the apprenticeship system, private vocational schools, government departments, crown corporations, the Saskatchewan Labour Force Development Board and Regional Economic Development Authorities. Letters were sent to these organizations inviting input about their expectations for SIAST and ideas about ways they could work with SIAST in the future. A total of 56 responses was received. The Review Committee also arranged face-to-face meetings with several organizations to gain a more in-depth understanding of their perspectives. A list of organizations contacted by letter and meetings with stakeholders is included in Appendix B.

As the Review Committee's work progressed, a number of topics emerged where further information and analysis were sought to help inform the committee's discussions and recommendations. These topics included:

- Technology–enhanced learning and its potential for delivering education and training;
- The evolving role of Canadian technical institutes and colleges in applied research and the granting of advanced technical education credentials;
- Trends in Saskatchewan in prior learning assessment and recognition and credit recognition; and
- An evaluation of SIAST's use of its resources.

The results of this research are presented in background reports which are available on the Review Committee's SIAST website http://www.siast.sk.ca/~siast/page11.html and the Department of Post-Secondary Education and Skills Training website http://www.sasked.gov.sk.ca/P/index.html.

CHAPTER 2: SIAST'S UNIQUE ROLE WITHIN SASKATCHEWAN'S POST-SECONDARY SYSTEM

1. SIAST's Current Programs and Services

SIAST is the province's pre-eminent institution for technical education and skills training, representing our largest single investment in training linked to jobs in all sectors of the economy. No other institution in Saskatchewan has a province-wide responsibility to prepare graduates with recognized qualifications to fill jobs in a wide range of occupations where entry level, intermediate, paraprofessional and advanced technical skills are required. As the province's second largest post-secondary institution in terms of budget, SIAST is one of the pillars supporting Saskatchewan's economy, job opportunities and quality of life.

Operating out of four campuses in Regina, Saskatoon, Moose Jaw and Prince Albert, SIAST delivers the following major types of programs and services under its current mandate:

Technical Education and Training

- In 1998/99 SIAST provided 181 technical education and training programs, including 89 one-year Certificate programs and 48 two-year Diploma programs. In addition, 31 Applied Certificate programs were offered, primarily to provide recognition for work-based training initiatives, and 13 Advanced or Post-Diploma Certificates to provide recognized, specialized training for graduates or others already working in a field at the professional level. SIAST's programs are organized into six broad categories: business and agriculture, science and health, nursing, technology, community services and industrial training.

Apprenticeship In-School Training

- SIAST delivers the in-school portion of apprenticeship training for 28 trades, out of a total of 46 apprenticeable trades in the province.

Basic Education

- SIAST delivers Basic Education in the four major urban centres. The Basic Education program assists students to develop academic and job readiness skills required by the labour market, and to enter further post-secondary education or training. The program includes literacy and life skills preparation, high school study and completion, General Education Diploma (GED) testing and preparation, English as a Second Language, transition to work, and counseling and assessment services. SIAST also assesses and registers basic education students eligible to receive income support in the form of the Provincial Training Allowance.

Extension Services

- Extension services encompass a wide range of full-time and part-time, credit and non-credit opportunities. The major program groups are as follows:

  Continuing education - part-time career related programs for the public

  Community education - part-time study to address local community issues, basic skills or general interests

  Sponsored training - delivered on a contractual basis for a sponsoring agency

  Industry training - delivered on a contractual basis for business or industry clients

  Outreach programs - off-campus credit courses or programs delivered in cooperation with other organizations

  Distance education - learning opportunities remote from the source of instruction

Academic and Career Counseling

- SIAST provides career information, counseling and assessment services to the public, students and business in the four urban centres. Academic counseling, and related services such as tutorial assistance, are available to assist students in selecting their programs of study and to complete them successfully.

International Services

- SIAST becomes involved in international projects to market its programs abroad, to support Saskatchewan trade and exports, and to foster professional development opportunities for its staff. Projects involve activities such as providing overseas clients with customized training and providing training to international students and representatives in Saskatchewan. SIAST also is involved in a Human Resources Development Canada internship program that allows fifteen SIAST students to study overseas.

Off-Campus University

- The University of Saskatchewan uses SIAST's administrative and program coordination services and facilities to deliver off-campus university programming in Prince Albert. Palliser Campus in Moose Jaw provides similar services and facilities to the University of Saskatchewan and the University of Regina. There were over 1400 enrolments in these courses in 1998-99.

The following table shows enrolments in various SIAST programs in 1998-99.

Table 1: Total SIAST Enrolment 1998-99
Full/Part-Time and Credit/Non-Credit

Type	Program	Extension	Total
Certificate and Diploma	5293	2884[1]	8177
Basic Education	2656	-	2656
Apprenticeship	2142	24	2166
JobStart/Future Skills[2]	-	3648	3648
SIAST Extension Courses[3]	-	30140	30140
Total	**10091**	**36696**	**46787**

[1]Extension certificate and diploma enrolments are mostly off-campus students registered in programs on a full and part-time basis through regional colleges, Saskatchewan Indian Institute of Technologies and Dumont Technical Institute.
[2]JobStart/Future Skills includes work-based training accredited by SIAST and non-credit training.
[3]SIAST extension courses are mostly short-term training or continuing education, including contract training. The figure includes 110 registrations from students taking courses in a SIAST program but who are not officially registered in a program.

2. The Province's Linchpin for Technical Education and Training

Saskatchewan has developed a unique technical education and training system where SIAST serves as a central provincial resource for many partners. As the diagram on the next page illustrates, in addition to its important role in the direct delivery of training, SIAST provides the curriculum, standards, learning resources and related services which enable and support other key partners in meeting training needs. Because these provincial resources are housed in SIAST, it has been possible for various institutions to develop complementary functions and to maintain consistency and quality in training programs. SIAST in effect acts as a linchpin within the entire training system.

Through a brokering arrangement with the province's eight regional colleges, SIAST enables them to offer a slate of credit and non-credit technical education and training courses and programs in communities throughout rural and northern Saskatchewan. As the current mandate of regional colleges does not include developing and certifying training programs, except in limited circumstances, their ability to be responsive and relevant to local and regional needs depends, for the most part, on the capacity and cooperation of SIAST.

First Nations and Métis institutions have evolved and expanded with the support of SIAST through academic partnership agreements. The Saskatchewan Indian Institute of Technologies (SIIT), which had a partnership agreement with SIAST until 1998, has been able to deliver training tailored to the needs of Aboriginal people and communities by using and adapting SIAST programs and collaborating with SIAST in program development. Similarly, the Dumont Technical Institute (DTI) has been able to offer basic education and technical training programs to Métis peoples and communities through its federation agreement with SIAST.

SIAST has been a primary deliverer of Basic Education in the province. Demands for basic education and related services will continue to grow in the future along with increasing pressures for technical education and training. Basic education plays an important role in supporting learners to continue on to further training or entry to the labour force.

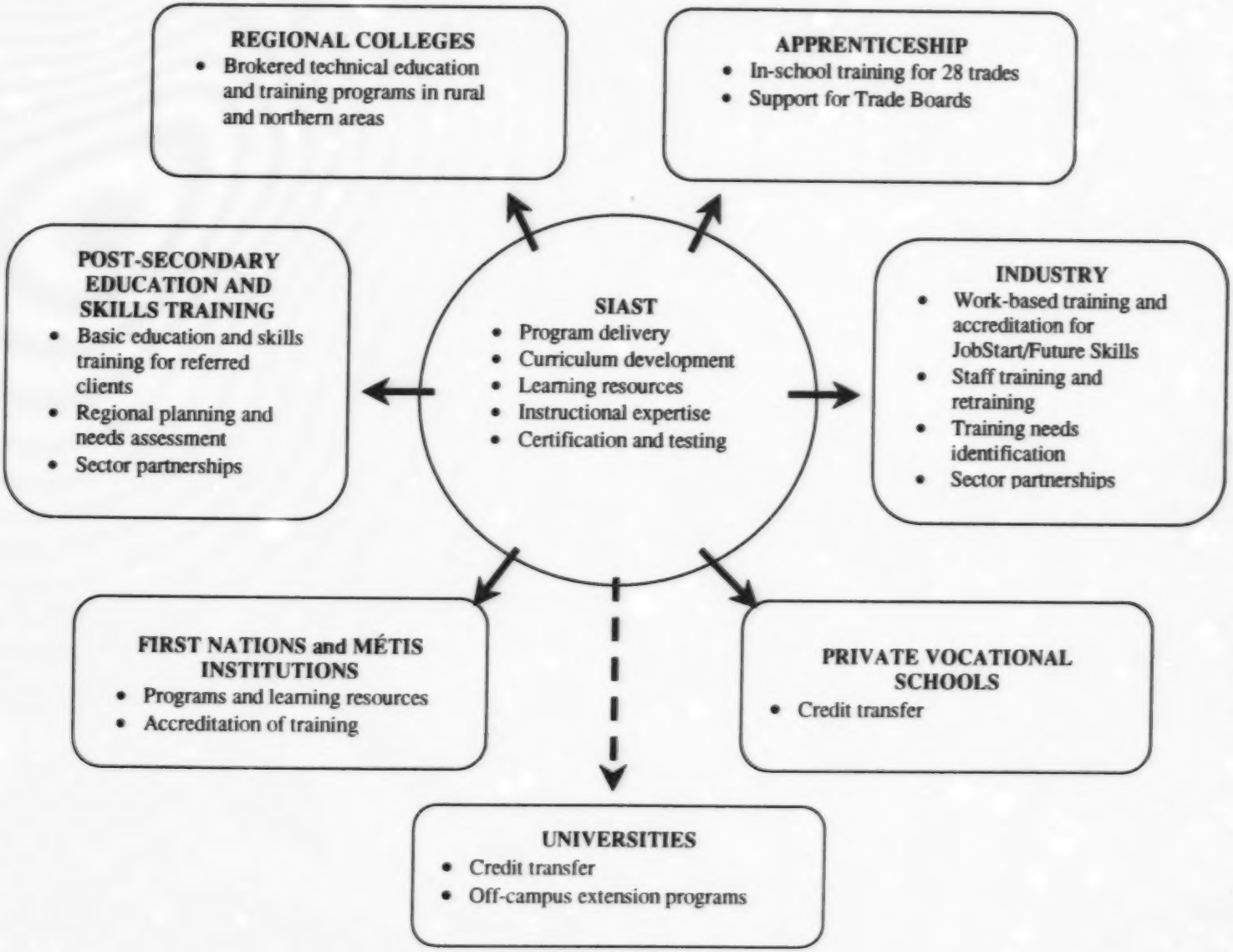
SIAST has been critical in the delivery and accreditation of work-based training under the province's JobStart/Future Skills program and in providing industry with the tools it needs for staff training. The institute works directly with hundreds of employers every year through JobStart/Future Skills and provides contract training and related services.

The apprenticeship system relies on SIAST to provide up-to-date high quality curriculum and instruction for apprentices in the majority of apprenticeable trades in the province. SIAST works closely with industry through Trade Boards and is expected in the future to develop strong linkages with the new Apprenticeship and Trade Certification Commission.

Linkages between SIAST and the province's two universities occur primarily at the program level through credit recognition and transfer. SIAST and the two universities are collaborating to develop a web-based electronic transfer guide which lists courses from one institution recognized by another. The Nursing Education Program of Saskatchewan (NEPS) is an example where SIAST-university cooperation has resulted in an integrated program design. SIAST's role in offering extension university courses at its Prince Albert and Moose Jaw campuses is another aspect of linkages with the university sector.

SIAST and private vocational schools are investigating the potential for credit transfer arrangements to enhance student mobility and employer recognition.

SIAST'S LINKAGES WITHIN SASKATCHEWAN'S TECHNICAL EDUCATION AND TRAINING SYSTEM


REGIONAL COLLEGES
• Brokered technical education and training programs in rural and northern areas
APPRENTICESHIP
• In-school training for 28 trades
• Support for Trade Boards
POST-SECONDARY EDUCATION AND SKILLS TRAINING
• Basic education and skills training for referred clients
• Regional planning and needs assessment
• Sector partnerships
SIAST
• Program delivery
• Curriculum development
• Learning resources
• Instructional expertise
• Certification and testing
INDUSTRY
• Work-based training and accreditation for JobStart/Future Skills
• Staff training and retraining
• Training needs identification
• Sector partnerships
FIRST NATIONS and MÉTIS INSTITUTIONS
• Programs and learning resources
• Accreditation of training
PRIVATE VOCATIONAL SCHOOLS
• Credit transfer
UNIVERSITIES
• Credit transfer
• Off-campus extension programs

3. SIAST and the Labour Market

SIAST programs are specifically geared to preparing workers to fill new jobs, as well as existing ones that are vacant because workers have been promoted or left the Saskatchewan labour force for reasons such as retirement. Employers and workers on the job both benefit from SIAST training opportunities to update and expand their skills in response to industry or technological changes.

One of the best indicators of SIAST's importance and success in preparing people to meet workplace skills requirements is the employment rate of SIAST graduates. Of the students who responded to the 1998 SIAST Graduate Employment Survey, almost 90% of SIAST graduates from certificate and diploma programs who looked for work, were employed six months after leaving school. Most of them (81%) were working in an occupation related to their training, and almost all (97%) were working in Saskatchewan. Employment rates for SIAST graduates have been consistently high in recent years, demonstrating ongoing demand for their skills and knowledge.

SIAST programs are continually being updated and redesigned to keep pace with the labour market and employment changes in both the private and public sectors. The table on the next page shows SIAST's programs linked to the major industry sectors within Saskatchewan's economy. The table shows that SIAST offers programs to fill key positions in every industry.

TABLE 2: SIAST CERTIFICATE AND DIPLOMA PROGRAMS LINKED TO INDUSTRY SECTORS

INDUSTRY SECTORS	SIAST CERTIFICATE AND DIPLOMA PROGRAMS
AGRI-VALUE • Agriculture • Agricultural Services • Farm Products • Storage and Warehousing • Food Processing	Biotechnology Chemical Technology Veterinary Technology Agriculture Production Beef Management Farm Business Management Farm Mechanics Pork Production
ENERGY AND MINING • Mining and Related Services • Crude Petroleum and Natural Gas • Refined Petroleum and Coal Products • Pipelines and Utilities	Instrumentation Engineering Underground Miner
FORESTRY • Logging • Wood Industries • Paper and Allied Products	Integrated Resource Management Vocational Forestry
TOURISM • Accommodation Services • Food and Beverage Services • Amusement & Recreational Services	Hotel and Restaurant Administration Professional Cooking Short Order Cooking Food Service Worker Recreation and Leisure Ecotourism
CONSTRUCTION • Building, Development and General Contracting • Trade Contracting • Industrial and Heavy Construction	Architectural and Building Technology Carpentry Electrician Electronics Service Technician Heavy Equipment Operator

INDUSTRY SECTORS	SIAST CERTIFICATE AND DIPLOMA PROGRAMS
INFORMATION TECHNOLOGIES AND BUSINESS SERVICES • Computer and Related Services • Professional Business Services • Finance, Insurance and Real Estate • Printing and Publishing • Advertising Services • Communications • Transportation	Computer Systems Technology Computer Engineering Technology CAD/CAM Engineering CADD Technology Civil Engineering Technology Environmental Engineering Technology Mechanical Engineering Technology Industrial Electronics Technology Geomatics Technology Water Resources Engineering Technology Water and Wastewater Technician New Media Communications Applied Photography Graphic Arts Production Advanced Video Systems Audio Visual Technician Micro-Electronics Technician Legal Office Assistant/Stenographer
MANUFACTURING • Textile Products • Plastic Products • Primary Metal • Fabricated/Metal Products • Machinery • Transportation Equipment • Electrical and Electronics Products • Chemical Products • Beverage Manufacturing	Agriculture Machinery Technician Heavy Equipment Mechanics Industrial Mechanics Machine Shop Parts Management Technician Major Appliance Servicing Outdoor Power Equipment Technician Truck and Transportation Mechanical Repair Refrigeration and Air Conditioning Building Systems Technician/Operator Power Engineering Process Operator Production Line Welding Recreational Vehicle Technician
PUBLIC ADMIN. AND EDUCATION • Government Services • Education Services	Corrections Worker Library and Information Technology Teacher Assistant

INDUSTRY SECTORS	SIAST CERTIFICATE AND DIPLOMA PROGRAMS
TRADE AND CONSUMER SERVICES • Retail Trade • Wholesale Trade • Personal and Household Services • Other Service Industries	Retail Meat Cutting Auto Body Technician Automotive Service Technician Barber/Stylist Cosmetologist/Esthetician Ceramics
HEALTH AND SOCIAL SERVICES • Hospitals • Physicians and Health Practitioners • Medical Labs • Other Health and Social Services	Nursing Practical Nursing Medical Laboratory Technology Medical Radiologic Technology Pharmacy Technician Home Care/Special Care Aide Occupational/Physical Therapy Assistant Dental Assisting Dental Hygiene Emergency Medical Technician Emergency Services Communicator Health Records Technology Medical Office Assistant Chemical Dependency Worker Rehabilitation Worker Food and Nutrition Management Early Childhood Education Youth Care Worker
ALL INDUSTRIES	Welding Driver Training Entrepreneurship and Small Business Business: • Administration • Accounting • Computer Info Systems • Financial Services • Human Resource Management • Marketing Office Automation Office Education Administrative Office Assistant Computerized Office Assistant Computer Clerk Computer Systems Support

The following table further illustrates SIAST's contribution to various industry sectors by comparing provincial employment in 1998 in each industry sector and the actual employment of SIAST graduates from on-campus certificate and diploma programs in 1997.

Table 3: Employment of the Provincial Labour Force and SIAST Graduates by Industry Sector, 1998

Industry Sectors	Percent of Total Employment	
	Province	SIAST Grads
Agri-Value	16.9%	3.3%
Energy and Mining	4.4	3.0
	1.2	.1
Tourism	7.7	5.2
Info. Tech. And Business Services	15.8	16.9
Construction	5.0	4.3
Manufacturing	3.5	5.9
Trade and Consumer Services	22.0	21.1
Health and Social Services	10.3	29.1
Public Admin. and Education	13.3	10.8
Total*	100.0	100.0

* Numbers may not add due to rounding

Source: SIAST Planning, Research and Development Division

The industry sectors where graduates found jobs were derived from information about employers collected through SIAST's annual follow-up employment survey of graduates. The responses for those graduates who answered the survey were extrapolated to estimate employment by industry sector for all SIAST graduates.

SIAST's role in preparing workers for jobs in the health sector is especially prominent with almost one-third (29.1%) of graduates finding employment in this area. SIAST's contribution to information technology and business services and manufacturing are also noteworthy because of the importance of these industries to developing new jobs. SIAST's contribution of skilled workers to resource-based industries, such as agriculture, energy and mining and forestry is lower than these industries' share of total provincial employment.

4. Opportunities for Saskatchewan People

SIAST is the institution of choice for many learners who want post-secondary programs that have a practical "hands on" focus and lead directly to employment after a year or two of study. The alternative of a university education does not meet the needs of these individuals, nor does the apprenticeship option since many occupations are not included in the designated trades in Saskatchewan. A recent national poll (Angus Reid) in early 1999 found that the preference of Canadians for technical or vocational education is increasing as learners compare the costs associated with different options and consider their job prospects after graduation.

The following table shows enrolments in the major post-secondary education and training options in the province in 1997-98. Over one-half of enrolments are in the university sector. Enrolments in the apprenticeship sector vary from year to year as they are driven by employer hiring which may drop when the economy slows down. The picture is static and does not portray movement within the system. Approximately 20% of SIAST students have attended university in the past, although few have completed degrees. Similarly, individuals in the future may attend SIAST to build on their skills acquired and accredited through work-based training under JobStart/Future Skills.

Table 4: Enrolments in Saskatchewan Post-Secondary Programs Full and Part-Time, On and Off-Campus, 1997-98

Type	Enrolment	
	Number	% of Total
Universities	28,919	57.0
SIAST Certificate and Diploma	8,819	17.4
Apprenticeship	5,003	9.9
Work-Based Training	3,494	6.9
Private Vocational Schools	4,500	8.8
Total	**50,735**	**100.0**

Note: Apprenticeship enrolment is based on the number of registered apprentices. Work-based training includes participants in Work-based Training for the Employed and Unemployed, Quick Skills and Bridging programs under JobStart/Future Skills. Regional college enrolments are included in figures for universities and SIAST.

For some, SIAST is the only institute of choice to develop their skills and attain qualifications. Residents of rural and northern Saskatchewan often cannot leave their home communities to seek training with an institution or employers in the cities. Approximately 40% of all SIAST students in certificate and diploma programs in 1997-98 were taking their program on an extension basis and most of these learners resided outside of the four major urban areas.

For others, the entrance requirements of some university programs may be a barrier. While most SIAST programs require a grade twelve standing and certain pre-requisites, there are options to gain entry to programs through competency-based testing and prior learning assessment. As well, SIAST's new admission policy will ensure broad access for diverse learners. Under the new policy all SIAST programs, with the exception of NEPS, will admit students on a first qualified, first admitted basis, rather than by selecting the most meritorious candidates.

SIAST's role in providing basic education is essential in assisting individuals who are extremely disadvantaged in the labour market because they cannot meet entry requirements for jobs or participate fully in our knowledge and information-based society. In 1998-99, almost one half of on-campus SIAST students were enrolled in basic education programs.

5. SIAST's Role In Achieving Public Policy Goals

Because of SIAST's central role in technical education, training, and workforce preparation in the province, its directions and performance are critical to the achievement of many policy goals that are priorities of the government and the public. SIAST is expected to incorporate public policy goals into its vision and operations and to demonstrate accountability for contributing to these goals.

The Saskatchewan Training Strategy, introduced in 1997, is a three year plan to develop a provincial training and employment services system that is responsive to the Saskatchewan economy, labour market and social priorities. As the province's pre-eminent training institution, SIAST has a key role in implementing all aspects of the strategy. In fact, much of the success of the Training Strategy depends on SIAST's effectiveness in adopting and integrating its goals and objectives. The goals of the Training Strategy are to:

- Develop a skilled workforce relevant to Saskatchewan's labour market;
- Enhance access and support opportunities for all learners; and
- Create a coherent, effective and sustainable delivery system.

The focus on developing a skilled workforce relevant to Saskatchewan's needs means that SIAST's programs must be reflective of changes in the labour market and the institution must have processes or mechanisms in place with industry to stay attuned to its needs. The creation of a flexible system that responds in a timely way to the needs of learners, industry and communities places expectations on SIAST for innovation in using a variety of approaches for program delivery. In order to improve access, SIAST must manage its planning, operations and resources to maximize learning opportunities and to address the barriers to training faced by many groups.

SIAST's role in preparing workers who have skills that match demands in the workforce is one of the foundations of the province's economic development strategy. Saskatchewan's efforts to enhance competitiveness, diversification and value-added processing, and to create new economic activities in sectors such as manufacturing and information technology, depend on having a high quality training capacity in the province. Access to education and training linked to jobs enables all individuals to participate in and benefit from these job and business opportunities, contributing to social equity and the full use of all talents and skills within the economy. The capacity of communities to manage their own future is enhanced by education and training geared to local economic development initiatives and industry needs.

The vision of the province's Northern Development Strategy is that the people of northern Saskatchewan will possess the means to address the goals and aspirations they have for their communities, their families and themselves. A goal in the strategy is to strengthen education and training, enabling northerners to pursue further academic goals and to better compete in the labour market, both in the north and beyond. SIAST's partnership with Northlands College to offer skills training on an extension basis is one of the major ways that northerners will be prepared for jobs in fields such as forestry, mining, tourism, health care and public

administration. Shifting demographics, growth in the numbers of northern youth, and the government's efforts to stimulate economic development in several sectors, all underline the importance of SIAST training to the future of northern Saskatchewan.

The province is committed to enhancing partnerships with First Nations and Métis peoples to ensure they have the opportunities and resources to participate fully in social and economic development. A priority area for cooperation is enhanced participation of First Nations and Métis peoples in all forms of education and training, including high school completion and enrolment in technical education, skills training and apprenticeship training. By serving significant numbers of First Nations and Métis peoples, SIAST programs in basic education and technical training make a major contribution to improving their employment prospects and the well-being of individuals and families.

The province's "Building Independence" strategy to provide income and training supports to lower income families and those on social assistance relies on SIAST in the four major urban centres to deliver programs that assist individuals in acquiring the basic qualifications for employment and for further skills training. Graduates from SIAST technical programs earn, on average, double the minimum wage as a starting salary, enabling individuals and their families to become self-supporting and avoid falling into poverty.

In addition to the specific strategies mentioned above, SIAST supports many other government priorities by providing skills training that enables public policies and services to be implemented. For example, SIAST's major role in preparing health care workers is critical to the effective delivery of services in this sector. SIAST training in areas such as livestock production and farm business management supports policies for diversification and competitiveness in the agricultural sector. With its emphasis on training for the workplace, SIAST is collaborating with the Department of Labour to support training in occupational health and safety and labour standards. Several other examples of training relevant to the public sector include SIAST's role in training skilled personnel for municipal administration, resources management, early childhood education, and youth services.

CHAPTER 3: ENVIRONMENTAL ASSESSMENT

SIAST's role within Saskatchewan's post-secondary education system should reflect the changing needs of the province and the future challenges facing individuals, employers and communities. The following outlines major developments in the province and elsewhere that will influence SIAST's future direction.

1. Social and Economic Trends

Saskatchewan's economy is restructuring and diversifying in response to the emergence of a global information and knowledge-based economy where expertise, technology and innovation are the most important growth factors. Our traditional strengths, grain production and resource extraction, are facing intense competition, while new economic opportunities are opening up to provide goods and services to worldwide markets. Improved technology and transportation are overcoming distance, location, and time.

These trends are creating demands for post-secondary education programs and services that can meet the following demands:

- Produce skilled workers who are able to use new technologies, knowledge and work processes to enhance competitiveness and to contribute to innovation in the economy;
- Build literacy, employability and technological skills and the capacity for lifelong learning throughout the population;
- Support ongoing learning and skills acquisition for individuals and employers adjusting to continuous change in their field of expertise or line of business;
- Provide specialized or customized training to unique businesses; and
- Certify knowledge and expertise gained from a variety of sources.

Shifts in Saskatchewan's economy in response to worldwide trends in the application of knowledge and technological change are reflected in jobs and employment in the province.

As shown in Table 5, during the 1990s, job creation in the service industries generally outpaced growth in the goods producing industries. The exception is manufacturing, which created the highest number of new jobs among all industry categories. After manufacturing, the top three growth areas in Saskatchewan's economy in the 1990s in terms of job creation were: professional, scientific and technical services; information, culture and recreation; and management, administrative and other support services. Other industries, such as forestry, mining, oil and gas, construction, and educational services have also shown relatively strong growth.

Those industries that experienced a loss of jobs include agriculture, public administration and utilities.

Table 5: Employment By Industry (000s)
Saskatchewan 1992-98

	1992	1998	Change
Goods Producing Industries	***137.6***	***145.5***	***+7.9***
Agriculture	77.1	71.4	-5.7
Utilities	3.8	3.5	- .3
Forestry, Fishing, Mining, Oil and Gas	12.5	15.7	+3.2
Construction	20.3	23.6	+3.3
Manufacturing	23.9	31.3	+7.4
Service Producing Industries	***312.8***	***333.3***	***+20.4***
Professional, Scientific and Technical Services	12.0	17.1	+5.1
Information, Culture and Recreation	15.2	20.3	+5.1
Management, Administrative and Other Support	8.4	12.3	+3.9
Educational Services	32.1	35.6	+3.5
Transportation and Warehousing	20.4	22.2	+1.8
Retail and Wholesale Trade	67.8	69.2	+1.4
Accommodation and Food Services	28.3	29.1	+ .8
Health Care and Social Assistance	52.1	52.6	+ .4
Finance, Insurance, Real Estate	24.5	24.8	+ .3
Other Services	22.2	23.1	+ .9
Public Administration	29.8	27.0	-2.8
Total	***450.5***	***478.6***	***+28.1***

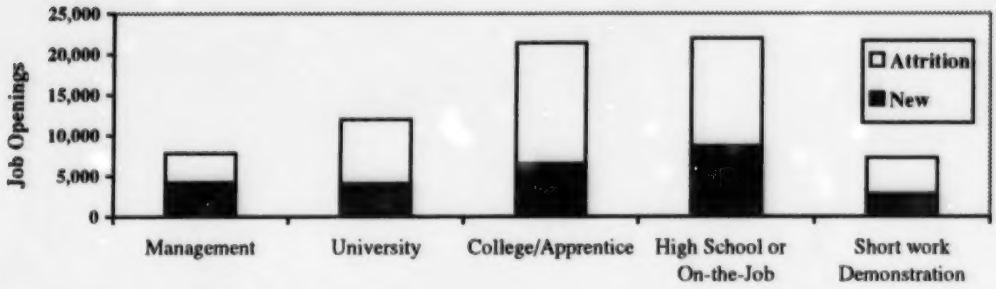
Source: Doug Elliott, Sask. Trends Monitor, *Saskatchewan Labour Market Trends*, Prepared for Saskatchewan Post-Secondary Education and Skills Training, 2000. (Numbers may not add due to rounding.)

While a degree of "deskilling" has taken place as a result of technological change and employment shifts in some service industries, overall labour demand has been strongest for skilled workers. This trend is expected to continue.

Table 6 shows that about 70,000 job openings are forecast for Saskatchewan in the next five years, including new jobs plus vacancies created through promotion, attrition or people leaving the provincial work force for reasons such as retirement. Of these job openings, approximately 60% will require management skills or post-secondary education and skills training, particularly college level education or apprenticeship, and almost all jobs will require a high school standing. This demand will sustain and accelerate pressures for access to technical education, apprenticeship training, and for basic education for adults who do not have a grade 12 standing.

Saskatchewan's economy will continue to be vulnerable to cyclical trends in the resource industries and their repercussions throughout the economy. This volatility presents issues for training in the province. During times of economic downturn, training may be in greater demand as individuals seek to become more competitive in the job market or postpone

Table 6: Projected Job Openings By Skill Level
Saskatchewan 1998-2003



Source: *Canada-Saskatchewan Employment Forecast,* based on the federal-provincial Canadian Occupational Projection System (COPS) demand model, June, 1999. "Management" occupations are not assigned to an education or training category because factors other than education and training, such as previous experience, are often more significant determinants for employment, according to the National Occupational Classification, Human Resources Development Canada.

looking for work until employment conditions are more favourable. Training during periods of short-term weakening in labour demand can provide an opportunity to prepare workers for better times and new positions in emerging occupations and industries.

The continuing importance of agriculture to the province's economy and communities presents other challenges for education and training in assisting people engaged in farming and other agricultural related occupations. Global competition, technological changes, and rising input costs are influencing the knowledge and skills that farmers require to sustain their operations, to diversify into new products, or to find off-farm employment. Technological innovation in the agricultural sector has also led to the emergence of specialized occupations thereby signaling a potential demand for new training.

Rural depopulation is a long-term trend in Saskatchewan that is expected to continue with agricultural restructuring. Education and training institutions will be challenged to provide programs and services to a shrinking population dispersed over large geographic areas.

Even though urbanization is a fact of life, Saskatchewan still has a relatively decentralized population with the majority of residents living and working outside of the four major urban centres of Regina, Saskatoon, Prince Albert and Moose Jaw where SIAST campuses are located. Table 7 shows that over one half of Saskatchewan's population, labour force and employers are located outside of the four major cities in the province's smaller settlements and rural areas.

Table 7: Rural and Urban Distribution of Saskatchewan Population and Employment

	Major Urban Centres (%)	Small Centres, Rural/North (%)
Population	44.6	55.4
Employers	41.2	58.8
Labour Force	45.9	54.1
Paid Employees	51.9	48.1

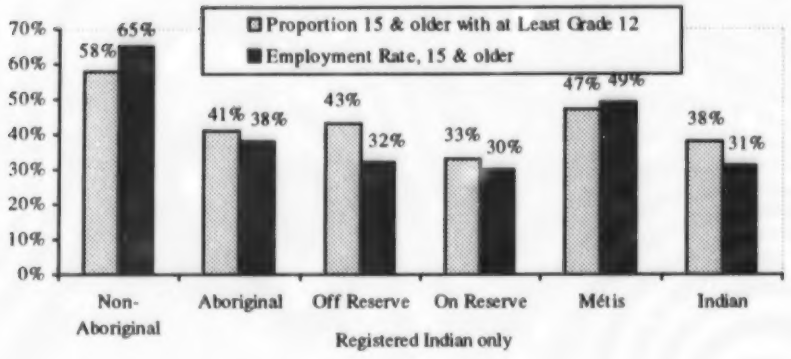
Source: Labour Market Information, Canada-Saskatchewan Strategic Initiatives, *Regional Profiles and Community Facts*, Statistics Canada, 1996 Census and Business Registry, 1998

In the next decade Saskatchewan will face major social and demographic challenges in achieving a well-educated population encompassing all sectors of our society. These challenges include the aging of our population, growth in the number of First Nations and Métis peoples who have historically been under-represented at all levels of education and employment, and the continuing rural to urban shift.

Aging of the province's population, as the baby boom generation moves into older age categories and the number of youth declines in absolute and relative numbers, will increase demands from people seeking skills updating, retraining and support for career changes. Given the retirement of the "baby boom" generation, if historical trends in interprovincial migration continue, the working age population in Saskatchewan will begin to decline in the next ten years. There will be a general tightening of the labour market with shortages occurring in specific occupations.

The employment status of First Nations and Métis peoples will be a major factor in ensuring that the province has a pool of talented and skilled individuals to fill jobs and to create new economic opportunities. Their participation in the labour force and the economy will depend on increasing education levels and eliminating barriers to the hiring, retention and promotion of First Nations and Métis peoples in the workplace. As shown in Table 8, currently there is a considerable gap between the education and employment levels of First Nations and Métis peoples and the rest of the provincial population.

Table 8: Employment Rates and Formal Education Levels, Saskatchewan 1996, Aboriginal and Non-Aboriginal Populations



Source: Doug Elliott, Sask Trends Monitor, *Saskatchewan Labour Market Trends*, Prepared for Saskatchewan Post-Secondary Education and Skills Training, 2000. Special tabulation from 1996 Census.

Disparities in education, training and employment among other groups, including people with disabilities, also demand attention as a social and economic imperative to Saskatchewan's future well-being.

According to the 1991 census, it is estimated that one in six people of working age in Saskatchewan has a disability. In terms of education, 18% of people with disabilities in this age group have post-secondary education certificates or diplomas, compared to about 23% for the non-disabled population, and approximately 7% have university degrees compared to 12% for non-disabled people. At the same time, the proportion of disabled and non-disabled people with high school standing is almost equal at about 46%. These statistics suggest that people with disabilities face a range of barriers in making transitions from the secondary education level into post-secondary education and skills training.

2. Expectations of Saskatchewan Learners, Employers, and Communities

As the province's primary agency for technical education and training, a key aspect of the environment for shaping SIAST's direction is the expectations of Saskatchewan people, employers and communities. The many public groups and interests that SIAST serves are also being affected by the large scale trends in Saskatchewan's social and economic fabric and they look to SIAST for programs and services to assist them in adapting to change. The following summarizes these expectations drawn from the Review Committee's consultation process and research.

Learners

Learners expect SIAST to:

- Offer technical education programs that lead to jobs with good career prospects and prepare graduates for the demands of the workplace.
- Provide access for learners to the program of their choice and minimize waiting lists.
- Have fair, equitable and meaningful entrance requirements, along with methods to assess and recognize prior learning.
- Provide credentials that are recognized and respected by employers for their high quality and relevance.
- Develop credit transfer and articulation agreements with other post-secondary institutions so that learners have career paths or options to enhance their education and qualifications.
- Develop contacts with industry to assist students in gaining workplace experience and in searching for jobs after graduation.
- Offer training at times and in locations and formats that accommodate learners' schedules, family and job responsibilities, and financial constraints.
- Support learning through effective instructional methods, learning resources, curricula, and student services such as counseling and tutoring.
- Assist learners in making academic and career choices that will suit their circumstances and goals.
- Provide an inclusive learning environment that respects diversity and accommodates the different needs of learners.
- Establish reasonable tuition fees so that programs are affordable to all students.
- Ensure accountability for the quality and effectiveness of the programs and services learners receive.

Employers

Employers expect SIAST to:

- Provide flexible delivery options to suit employer and employee circumstances in terms of the time, location and format of training.
- Gear training to ongoing and emerging skills needs in Saskatchewan to prevent skills shortages and ensure a supply of well-qualified workers.
- Prepare graduates for the workplace through "hands on" knowledge and skills, a focus on employability skills, and training with up-to-date curricula and equipment.
- Involve industry in the planning, design and delivery of training to ensure relevance and responsiveness to workplace needs.
- Encourage and provide options for lifelong learning, skills updating and retraining.
- Develop capabilities to assess and recognize the skills and knowledge of workers attained through job experience, industry-sponsored or private training and formal education.
- Encourage people to enter technical occupations and trades as a career choice.

- Train First Nations and Métis job candidates for positions with employers striving to achieve a representative workforce.
- Offer affordable programs and services for employers and learners so that cost is not a barrier to developing skills needed in Saskatchewan workplaces.
- Assist employers in meeting international standards that increasingly must be met to market products globally.
- Adopt a business orientation with a focus on customer satisfaction and user-friendly, single point access to services.

Communities

Communities expect SIAST to:

- Provide SIAST programs, face-to-face or via technology-enhanced learning, at off-campus locations so that youth and adults can remain at home to access training and to enhance the attractiveness of communities as locations for business.
- Work with other post-secondary institutions, communities and industry to identify local skills needs and to offer appropriate programs to meet these needs.
- Develop a better capability to forecast emerging skills requirements of employers at the local level and gear training to occupations in demand in rural and northern areas.
- Offer learning assessment and certification services to individuals seeking to expand their employment or business options.

3. Developments in Technical Education and Training

Post-secondary institutions similar to SIAST in Canada and elsewhere, are facing changes and expectations that share common features with those in Saskatchewan. A wide variety of strategies and approaches are being explored and implemented by other institutions to respond to change and to take advantage of opportunities to enhance their services, reputation, and public support. This section outlines these developments that can suggest potential directions for SIAST and emerging "benchmarks" for education and training against which SIAST will be compared by students, businesses and communities.

Technology-Enhanced Learning

Technology-enhanced learning is at the centre of massive changes in how education and training will be developed, delivered and accredited in the future. With advances in on-line capabilities and other multi-media, and their increasing availability in the home and the work place, most institutions are introducing electronic formats for their programs and services. Some institutions, for example, the Southern Alberta Institute of Technology, are committed to putting the majority of their programs on-line in the next few years and plan to attract world-wide learners. The Gartner Group estimates in the next five years more than 50% of all traditional students in programs at colleges and universities in developed nations will take one or more courses off-campus.

The expansion of technology-enhanced learning has many implications for SIAST and other post-secondary institutions:

- Students will have greater choices to access learning from many sources at times and locations convenient to them and to design their own programs of study. There will be increasing pressure on institutions to recognize learning from other providers and to accommodate and support customized, individualized learning.

- Technology is spurring innovation in institutional arrangements. Consortia among institutions to deliver and recognize courses and programs delivered by electronic means are enabling institutions to greatly increase learning options to their constituents.

- Technology-enhanced learning is moving into the "mainstream" of institutional programming. The traditional place of the distance education or extension department as a separate organizational unit is breaking down in institutions where all courses use technology and are adaptable for either classroom or on-line instruction.

- The role of instructors is changing. Faculty will increasingly move away from being transmitters of information to becoming coaches and facilitators that guide and challenge students through course material offered by their own institution as well as others. Their role will also change through involvement in developing on-line curricula.

- Costs for integrating technology are significant and will not bring immediate savings to educational institutions that can be re-invested in the short-term to help defray new expenditures for technology or the conversion of courses to electronic formats.

The Learner-Centred Organization

Economic and social restructuring and technological change in the 1990s have forced post-secondary educators to assess the models and assumptions underlying how they define and carry out their work. The concept of learner-centred organizations is gaining ascendancy as a new paradigm for creating access, relevance and accountability within today's environment. The learner-centred organization seeks to move from being an institution that "provides instruction to students" to one that "produces learning in students" (Flynn). To illustrate the concept and its implications, the following are examples of learner-centred strategies:

- Curriculum explicitly designed around the critical learning outcomes necessary for graduates' success in life and the workplace;

- Use of multiple instructional strategies that respond to different learning needs and styles;

- Redefinition of the role of faculty and training for them in identifying learning styles, developing modularized curriculum, using instructional technologies and designing effective learning environments;

- Use of time schedules and places or settings that are conducive for learning, rather than being determined by bureaucratic rules or the standard classroom configuration;

- Collaborative leadership and cooperation among all employees in defining how they will reconfigure the institution to place learning first in all decisions and actions.

Partnerships and Alliances

Institutions are increasingly involved in a wide variety of partnerships with each other, industry, community organizations, professional bodies and government agencies for a wide range of mutual benefits. For example, inter-institutional partnerships have developed where curriculum is licensed to a partner institution for fees, allowing the home institution to generate revenue and the delivery institution to extend offerings to its students. Through partnerships with industry, institutions are able to offer students learning in "real-life" settings, using up-to-date technology, while industry receives training customized to its requirements and potential employees well versed in their business. Partnerships with community agencies facilitate better integration of training with learner support services and with local economic and social development plans.

An example of an innovation partnership in Canada today is the Seneca@York Project, a joint venture between Seneca College, York University, and private industry. The location of a Seneca campus at York University has opened the door for new joint venture programs that blend the knowledge and analytical strengths of the university, the technical skills and training of the college, and the expertise and up-to-date equipment and systems of various industries.

Mobility and Transferability of Learning

Traditional educational and career paths are breaking down with greater mobility in the workforce, geographically and occupationally, and there is a need for people to continuously revamp their knowledge and skills. Accordingly, institutions have experienced pressure to develop mechanisms to increase the transferability and portability of learning and credentials and to make these arrangements transparent to learners. The introduction of Prior Learning Assessment and Recognition (PLAR) is well underway in many institutions to allow learners to gain advanced standing for their previous learning or experience. The expansion of credit transfer and equivalency arrangements between different technical institutions, technical institutes and universities, and public institutions and private schools is another trend.

In striving to make their post-secondary education systems as "seamless" as possible, various provinces have encouraged transferability of learning through system-wide directions and organizational structures to facilitate credit transfer. For example, both British Columbia and Alberta have established councils on admissions and credit transfer. In Manitoba and Ontario, councils or consortia that include technical institutes, colleges and universities have been formed to advance collaboration among the sectors, with improved transferability of learning being a high priority.

Advanced Technical Education Credentials

Technical institutes and colleges in several provinces are beginning to participate in offering higher level credentials, beyond the traditional two year diploma, in response to student demand and advances in technology and knowledge required on the job. The new economy demands workers who are highly skilled in technical fields and have a broad base of knowledge and multi-faceted skills for continuous learning and career advancement. To acquire these qualifications, there is an increasing trend for students to seek both university and technical institute/college credentials.

Initiatives are underway in the other three western provinces to offer a variety of alternatives to students, for example:

- Applied degrees are offered by several colleges and technical institutes in Alberta in fields such as: forestry resources management, communications, small business and entrepreneurship, petroleum engineering, environmental management, information systems, and horticulture. Applied degrees were introduced on a pilot basis in the mid-1990s and, after an in-depth evaluation, were deemed by the province to be meeting emergent skills needs without duplicating programs offered by universities.

- Learners in British Columbia have options through the university college system to take a two year diploma and then progress on to an additional two years of study at university to attain a degree. Institutions also offer applied degrees of technology, some of which are aimed at diploma graduates who are already in the workforce and wish to enhance their knowledge as managers within technological fields.

- There has been college-university collaboration in Manitoba to offer concurrent programs in fields such as communications, administrative studies, applied sciences, and developmental studies. Students take courses from both institutional sectors and earn a diploma and a degree in five years of study, rather than six years if both programs were taken separately.

Applied Research

A number of technical institutes and colleges in Canada are carving out a role in applied research as an extension of their particular areas of technical or technological expertise and partnerships with industry. This activity has emerged informally in some cases through instructor contacts with researchers in universities or industry. In other instances, provincial governments have added applied research to institutional mandates. For example, colleges in Quebec (CEGEPs) have research and technology transfer in their mandate, with specializations at different colleges linked to the local economy (e.g. food technology, metallurgy, software development, computer assisted design/manufacturing). At the federal level, college involvement in applied research is supported by the Canada Foundation for Innovation and its College Research Development Fund.

Technical institutes and colleges have become involved in applied research for several reasons. The benefit of applied research in strengthening and enriching the educational mandate of the institutions is a primary motivation. For example, students gain practical skills and experience and have an advantage in seeking work after graduation, while instructors can update their knowledge through exposure to leading edge developments in their field of expertise. Governments have encouraged this development as a means to support economic growth and competitiveness through focussed research aimed at solving practical problems in industry.

Accountability and Performance Management

The post-secondary education sector in most jurisdictions in Canada and abroad is experiencing escalating demands for accountability and performance management. Governments, learners, industry and the general public want to be assured that institutions are responsive to their needs and expectations and are achieving results in an efficient and effective way. While post-secondary institutions have long used methods such as program reviews, advisory bodies and surveys of graduates to monitor their performance and make adjustments, the demand today is for comprehensive and systemic approaches that link plans, performance measurement, reporting, and continuous improvement throughout the organization.

Technical institutes and colleges in a number of provinces are working with government to develop and refine key performance indicators (KPIs) aligned with system-wide strategic goals and institutional business plans. These performance indicators are being integrated into annual reports to the public and, in some jurisdictions, into the budget allocation process.

CHAPTER 4: CURRENT ORGANIZATIONAL POSITIONING

SIAST's current positioning describes how well the organization is prepared to respond to the major social and economic trends affecting the province and the expectations of Saskatchewan people. Given SIAST's existing mandate and operations, the Review Committee identified strengths that could form the building blocks for institutional renewal and issues that will need to be addressed if SIAST is to continue to fulfill its role as the province's leading agency for technical education and training.

1. SIAST's Key Strengths

- ***SIAST's Credibility and Reputation:*** The Review Committee found through its consultation process that SIAST's credibility and reputation is an overall strength. Several organizations commented on the high calibre and employment success of SIAST graduates, positive working relationships with SIAST, the quality of SIAST faculty, staff and programs, and the importance of SIAST to their particular needs and interests. SIAST is seen as having experienced a turn-around in recent years in terms of its responsiveness, customer service focus, and willingness to seek the involvement and input of industry. While there were many suggestions for improvement, the Review Committee was impressed by the level of respect and support that SIAST has earned in the province.

- ***New Organizational Structure:*** SIAST has undertaken a major organizational restructuring in the past few years to move to one institution with four campuses and a province-wide mandate. Programs have been categorized into eight provincial divisions, rather than having a variety of separate divisions at each campus location. With completion of the restructuring, the standardization of similar programs provincially is now underway.

  The Review Committee concluded that while the restructuring has taken a great deal of effort, it is widely supported both within SIAST and by external groups. Advantages to be realized through the new model include: stronger capacity for multi-site delivery in urban, rural and northern locations, greater ability to concentrate resources in developing courses and programs through less duplication, and one point of contact for learners and industry. By consolidating programs and resources, SIAST is better positioned to enhance quality and to respond to ongoing demands for new programs.

- ***Virtual Campus Plan:*** The establishment of a "virtual campus" was originally one of the cornerstones of SIAST's organizational restructuring towards a unified provincial institution with multi-site delivery capacity. The idea has widespread acceptance among SIAST faculty and staff and is seen as a critical part of the organization's future direction. SIAST has developed a comprehensive plan with four priority sectors targeted for applying technology-enhanced learning: economic development priorities such as forestry, mining, tourism, and small business development; health care professions; basic education needs such as math and science in northern and

rural communities; and training in electronic commerce for business. SIAST's plan is based on developing partnerships with a wide range of organizations including the universities and regional colleges, federal government departments, economic development agencies and industry.

- ***Curriculum Model:*** SIAST has adopted a new curriculum model that will be used as the template to develop and revise all courses and programs in the future. The model will produce curricula with the flexibility to be delivered on or off-campus, in work places, or via technology-enhanced methods. Learning outcomes will be the basic unit of the curriculum structure and the foundation for setting assessment standards, promoting recognition of prior learning and portability of credits, and enabling customization by combining learning outcomes from different courses. The new curriculum model, combined with the virtual campus plan, will be at the heart of SIAST's future ability to meet public expectations for training "any time, any where".

- ***Education Equity Plan:*** SIAST is the only provincial post-secondary institution with a comprehensive, institute-wide Education Equity Plan approved by the Saskatchewan Human Rights Commission, and the first technical institute or college with a plan of this nature in Canada. In 1998, SIAST won a Training For Excellence Award from the Saskatchewan Labour Force Development Board in recognition of its equity initiatives. While SIAST has not achieved all of its targets as shown in Table 9, progress has been made overall. At the institute-wide level, SIAST has exceeded the target of having 12.2% of its students of First Nations and Métis ancestry, which reflects their representation in the provincial population. SIAST annually sets aside 1% of its base budget allocation for special measures designed to provide non-discriminatory access for people with disabilities, visible minorities, women, and First Nations and Métis peoples.

Table 9: Equity Group Enrolments as a Percentage of Total On-Campus Enrolments, SIAST Certificate and Diploma Programs, 1997-98

Group	Kelsey	Palliser	Wascana	Woodland	Goals
First Nations and Métis	8.0%	4.5%	9.6%	37.0%	12.2%
Students With Disabilities	5.6%	3.2%	7.9%	5.6%	9.7%
Women in Industrial/Tech. Programs	9.7%	16.4%	13.1%	11.8%	50%
Visible Minority Students	1.4%	2.5%	3.0%	.4%	4.7 Kelsey 2.6 Palliser 5.1 Wascana 2.6 Woodland

Source: SIAST Education Equity Program: *Annual Monitoring Report, July 1, 1997 - June 30, 1998*, Submitted to the Saskatchewan Human Rights Commission, September 30, 1998.

- ***Industry Involvement and Partnerships:*** Industry involvement and partnerships are critical to SIAST's ability to be responsive to ever-changing skill demands in the workplace. SIAST has made a concerted effort to involve industry at several levels and through new partnership arrangements that seek to tailor training to industry needs. For example, the John Deere Agricultural Machinery Technician program combines technical training at SIAST with dealership experience, leading to journeyperson certification.

  SIAST has renewed its Program Advisory Committees and has stressed its accountability to them. Over 600 industry representatives serve on the committees to advise on the relevancy of all credit programs to labour market needs. Through its extension activities and cooperative education programs, SIAST is in close contact with industry to determine training needs and develop appropriate responses. SIAST also participates in Sector Planning Partnerships with industry to identify human resource needs and strategies to meet them.

  SIAST's partnerships with industry have expanded to include the provision of services where the expertise of SIAST faculty is applied to technological needs and problems in industry. For example, SIAST faculty work with small business to customize CAD/CAM applications and are engaged in product testing in the area of engineering technologies. In partnership with the Saskatchewan Research Council, the National Research Council, the Department of Northern Affairs, and Northlands College, SIAST contributes to the employment of an Industrial Research and Technology Advisor for northern Saskatchewan.

- ***Prior Learning Assessment and Recognition(PLAR) and Credit Transfer:*** Policy and procedures for PLAR were introduced a few years ago at SIAST and all credit programs can now be challenged by prior learning assessment processes. This initiative has allowed SIAST to gain experience in PLAR and its implications for students, instructors, and programs. The introduction of JobStart/Future Skills has involved SIAST in the certification of work-based training and its transferability to institutional technical and training programs. SIAST's organizational restructuring and the new curriculum model, when fully implemented, will position SIAST to eliminate credit transfer barriers across SIAST programs.

- ***Business Planning:*** SIAST has introduced a business planning process with a five-year horizon. The plan has become the vehicle for establishing the priority of all institutional and program initiatives and determining resource allocation. It is enabling the SIAST Board and managers to make decisions taking into account the array of pressures facing SIAST and the need to address new priorities within budget. The business planning process is supported by needs assessments that allow SIAST to scan developments in its environment and to incorporate the significance of these trends into decision-making.

- ***Quality and Dedication of SIAST Faculty and Staff:*** SIAST's reputation and success in serving learners, industry and the province as a whole is due to the expertise, efforts and commitment of its faculty and staff. Through its workshops with SIAST instructors, administrative staff and union representatives, the Review Committee concluded that faculty and staff at SIAST are committed to achieving a dynamic learner-centred institution that offers high quality programs and has strong linkages with industry, other post-secondary institutions, First Nations and Métis organizations, and rural and northern communities. While faculty and staff are understandably concerned about the uncertainty and instability that change brings, there is a high level of awareness about the challenges facing SIAST and the opportunities for building on SIAST's current strengths.

2. Key Issues for SIAST's Future Directions

- ***Maintaining an Array of High Quality, Relevant Programs:*** With growing demands for skilled workers and economic diversification in the province, learners and industry expect SIAST to offer an expanding array of programs. For example, in response to identified needs in the past five years, SIAST has created 21 new certificate and diploma programs, 6 advanced or post-diploma certificates, and over 30 applied certificates. SIAST has been able to offer the majority of these programs because they operate on a cost-recovery basis through partnerships with other sponsoring organizations. Few programs have been deleted over the same time period as they continue to be in demand by industry and employment rates for graduates in the province have been strong. Once programs have been developed, there are ongoing costs associated with updating of curricula and instructors, as well as equipment and facilities.

  The Review Committee believes that SIAST's evolving program array demonstrates an organizational commitment to offering relevant programs, a direction to be commended rather than discouraged. In this context, the long-term challenge for SIAST is to develop strategies for ensuring it has a coherent, manageable and sustainable program array without sacrificing its commitment to quality and responsiveness.

- ***Program Capacity and Accessibility:*** As shown in Table 10, SIAST enrolments have dropped slightly in recent years. This situation is more due to program capacity limits than to falling student demand for entrance. However, when the corrections noted below are made for NEPS students, the actual number of graduates is essentially unchanged. Over 90% of SIAST programs continue to maintain waiting lists for qualified candidates and between 1992-93 and 1997-98, applications to SIAST grew by 17%. Because most programs require labs, shop facilities or computer workstations, capacities cannot be easily increased by simply adding more students to classes without investing in infrastructure.

Table 10: Full and Part-Time Enrolments in SIAST Certificate and Diploma Programs 1994-95 to 1998-99

	On-Campus Programs		Extension Programs		Total	Graduates
	FT	PT	FT	PT	FT/PT	
1998-9	4856	437	1923	961	8177	2087
1997-8	5056	374	2293	1096	8819	2268
1996-7	5012	447	2251	947	8657	2467
1995-6	5185	571	1939	1225	8920	2485
1994-5	5409	583	1836	1473	9301	2285

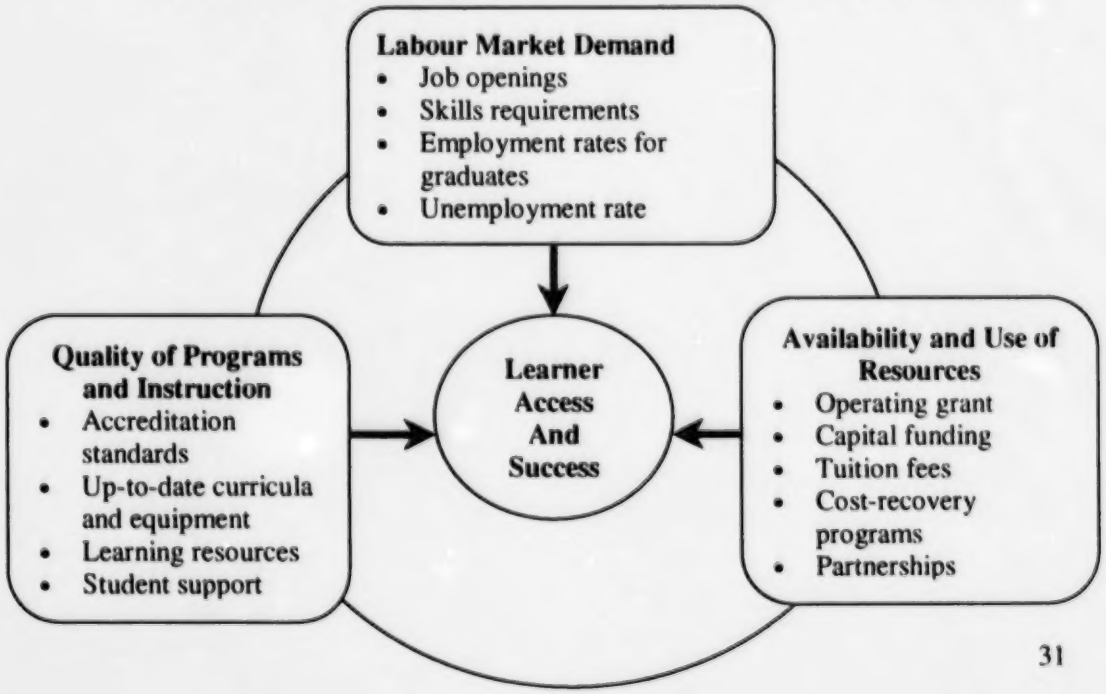
Table 10 does not include Basic Education enrolments.

The phasing out of the former diploma Nursing program and implementing NEPS resulted in large fluctuation of enrolments, particularly in 1997-98. Part of the drop in full time enrolment in extension programs in 1998-99 resulted from the elimination of SIIT students from SIAST enrolments. Fewer graduates listed for 1998-99 is primarily due to the fact that graduates from the NEPS program are not reported.

There is some evidence students are leaving the province to seek technical education and training. Statistics Canada's 1997 National Graduate Survey found that approximately 20% of students in the class of 1995 who lived in Saskatchewan prior to enrolling in a college level program resided out of the province at the time of their graduation.

As shown in the diagram below, accessibility to SIAST programs is influenced by several factors that must be balanced by the institution:

FACTORS INFLUENCING ACCESSIBILITY OF SIAST PROGRAMS



- **Labour Market Demand:** SIAST is committed to training linked to the Saskatchewan labour market and is judged on the employment rates of its graduates. Although students may wish to train in a particular field, SIAST must balance this demand with job openings so that graduates find work in training-related fields.

- **Quality of Programs and Instruction:** SIAST programs must provide a satisfactory level of quality to meet accreditation standards and employer expectations. As well, the quality of instruction influences student retention and success. Cutting back on quality to increase access can be self-defeating if neither employers nor students are well served.

- **Availability and Use of Resources:** Like all public post-secondary education institutions, SIAST faces resource constraints in its base funding from government, the level of tuition fees it can charge, and resources that can be raised through private contracts and partnerships. SIAST has adopted a policy to keep tuition fees affordable while increasing them annually, over an eight year period, until fees reach a level that covers 20% of program costs. Partnerships with industry and delivery of courses or programs on a cost-recovery basis have helped SIAST to extend its resources. Further efficiencies or strategies may be possible.

- ***Multi-Site Delivery:*** SIAST's role as a province-wide institution committed to multi-site delivery raises issues about the future of programming in urban, rural and northern locations. As noted earlier, a significant number of SIAST students in credit programs are currently enrolled on an extension basis and are taking their education in locations other than the home campus of their program. SIAST also serves many off-campus learners through the delivery and accreditation of work-based training.

  SIAST's current flexibility in delivering programs and services throughout the province corresponds with the expectations of learners, communities and industry, and the high priority they place on access to technical education and training at the local level. There are indicators that multi-site delivery of SIAST programs should continue to expand in the future considering where students live and where they find work. As shown in Table 11, the majority of students (69%) who apply for on-campus programs must relocate to attend SIAST. As well, follow-up surveys of SIAST graduates from on-campus programs show that approximately 23% of them subsequently move to obtain jobs in rural or northern areas.

Table 11: Comparison of 1997-98 Applications by SIAST Campus

	Campus City	Rest of Province
Kelsey Campus	31%	69%
Palliser Campus	16%	84%
Wascana Campus	45%	55%
Woodland Campus	36%	64%
SIAST	**31%**	**69%**

Source: *Geographic Distribution of Applicants to the Saskatchewan Institute of Applied Science and Technology*, SIAST Planning, Research and Development Division, October, 1999.

The array of programs offered off-campus is another aspect of SIAST's multi-site delivery capacity. For the most part, a minority of programs in SIAST's total array has been offered in locations other than home campuses. To illustrate, SIAST programs offered in rural and northern areas over the past five years have tended to be concentrated among a small number of programs which are repeated year to year, such as welding, office education, truck driver training, business administration, home care/special care aid, emergency medical technician, automotive service technician, and parts management technician.

In the future, implementation of technology-enhanced learning and SIAST's new curriculum model will facilitate delivery of training in learning centres, workplaces, and homes throughout the province. In order to realize the full benefits of these capabilities, SIAST will need to work closely with other partners to identify regional and provincial training needs and to collaborate in determining how these needs might be met using an array of approaches such as face-to-face delivery, multi-media, and training on the job.

SIAST's working relationships with regional colleges will be particularly important because of the colleges' central role in delivering education and training in rural and northern Saskatchewan through brokerage arrangements. Consultation with the regional colleges, undertaken as part of this review, identified considerable scope for strengthening the existing protocol agreement to reflect new circumstances and demands such as SIAST's organizational restructuring, technology-enhanced learning, and the growing diversity of training needs in rural and northern areas.

Although there are opportunities to enhance multi-site delivery in the future, SIAST will continue to face serious constraints. Not all programs can be easily delivered off-campus because they require specialized equipment and facilities. Many diploma programs fit in this category, particularly in the second year of study.

Issues of cost and affordability are also very pertinent. Currently, the cost for delivering most off-campus programs is subsidized by specific funding for skills extension from the province. However, if this funding is not available and there is sufficient demand, SIAST may finance the delivery of programs by charging a full cost recovery tuition fee. This approach is a practical response to meeting demands but introduces differential fees for students - a controversial practice for a public institution.

- ***Capacity to Meet High Level Skills Needs:*** The growing complexity of jobs and the depth of knowledge required by many technical and technological occupations are challenges to SIAST's continuing relevance and role in supporting economic development. The institution's ability to keep pace with change and to incorporate higher levels of technical expertise is limited in several ways, with consequences for learners and industry. For employers, SIAST may not be able to offer programs that reflect the realities of the workplace or that enhance business competitiveness. For students, the value of a SIAST diploma in some fields may be questionable in terms of preparing them for new technical jobs in the economy and in supporting their career advancement and mobility in the long-term.

  There are many potential approaches to addressing the needs of students and employers for higher levels of technical education and skills training. SIAST has well developed agreements for credit transfer of courses in several areas, not only with Saskatchewan universities but also with other Canadian universities, community colleges and technical institutes. However, of its 137 certificate and diploma programs, only two programs have articulated agreements with Saskatchewan universities where one or two years of study are automatically recognized for credit toward earning a degree.

- ***Flexibility and Responsiveness:*** In order to meet the expectations of learners and employers, SIAST, in the future, will need to prove itself as a flexible and responsive organization. This issue is among the major concerns raised by groups consulted by the Review Committee. Plans for curriculum reform and technology-enhanced learning have the potential to greatly assist SIAST in this direction. However, they will need to be accompanied by a shift in organizational culture and practice that puts a premium on timeliness, innovation and flexibility. There are many examples where SIAST has demonstrated this orientation; it needs to become a consistent, institution-wide theme.

- ***First Nations and Métis Education and Training:*** SIAST has been instrumental in increasing opportunities to close the gap in educational levels between First Nations and Métis peoples and the rest of the provincial population through its education equity initiatives and its federation agreements with the Saskatchewan Indian Institute of Technologies (SIIT) and the Dumont Technical Institute (DTI). Expected growth in the First Nations and Métis populations, particularly in the younger age groups, makes it essential for SIAST to maintain its focus on improving results for First Nations and Métis students in its programs and to continue to create innovative partnerships with SIIT and DTI. SIAST's relationships with these institutions should reflect their evolution and strengths in creating unique programs and learning environments tailored to First Nations and Métis needs. Planning and coordination to ensure that SIAST and these institutions are offering complementary programs and services will assist in making the best use of all resources and expertise.

- ***Human Resources:*** The critical role of SIAST's faculty and staff in determining the quality of programs and instruction and in forging relationships with industry will require ongoing attention in SIAST's future evolution. Technological change and aging of the workforce are having a major impact on SIAST's faculty and their ability to continue to offer up-to-date curriculum and innovative teaching strategies to accommodate alternative delivery methods and a diverse student population. SIAST's existing commitments to professional development and succession planning will need to be enhanced to increase avenues for faculty to maintain the currency of their occupational knowledge and skills, and to incorporate new approaches such as technology-enhanced learning into their practice. SIAST faces particular challenges in recruiting and retaining personnel in technological disciplines in both academic and administrative support roles and will need to develop strategies to address this issue.

- ***Communications:*** As a province-wide institution, SIAST needs to have a profile and relationships with other organizations that reflect its mandate and goals. SIAST should have a leadership role in raising awareness of technical fields and the trades as an occupational choice, and in promoting training and employment opportunities in the province. It also is in a position to advance partnerships and cooperation at the provincial level with, for example, industry associations, major employers or economic development agencies, and other parts of the education system.

The Review Committee notes that SIAST developed a communications/marketing plan in early 1999 and it has been implemented through methods such as invitational receptions at SIAST for business and employer representatives. Other strategies in the plan, including regular forums or meetings with external stakeholder groups are consistent with findings from this Review. A number of organizations consulted by the Review Committee wanted greater contact with SIAST and more opportunities for interaction.

CHAPTER 5: STRATEGIC DIRECTIONS FOR SIAST

OVERRIDING PRIORITIES

Based on the analysis of SIAST's current organizational positioning in relation to future trends and public expectations, the Review Committee's recommendations for SIAST's strategic directions are focussed on four overriding priorities:

- **An Appropriate and Progressive Mandate**

  An appropriate and progressive mandate for SIAST will enable the institution to contribute fully to Saskatchewan's future economic and social development and to a coherent and coordinated post-secondary system. SIAST's responsibilities for programs and services should evolve to fit new circumstances and needs in the province.

- **A Commitment to Accessibility**

  A commitment to enhancing access to SIAST programs and services for all people throughout Saskatchewan must be at the centre of SIAST's decision-making, taking into account the need to balance accessibility with quality, resources and labour market demands.

- **Responsiveness to the Labour Market**

  SIAST must address priority skills needs within Saskatchewan's labour market and develop extensive linkages with employers to respond to emerging skills requirements and to develop innovative and flexible ways of meeting these needs.

- **Organizational Effectiveness**

  Having become a unified provincial institution, SIAST must revitalize organizational policies and processes to be effective in working within its new structure. SIAST's vision, planning, communications, human resource management, and relationships with other organizations are aspects of its effectiveness as a provincial institution which need to be addressed.

The Review Committee proposes these priorities, and the recommended strategies to address them, as long-term directions for SIAST to work towards over the next five years or more. It is recognized that SIAST currently has a full agenda and many resource constraints. The Review Committee's recommendations are oriented to assisting the organization and government in managing these pressures, while realizing new goals. SIAST, like all organizations, will experience ongoing change in the years ahead. The Review Committee's intention has been to provide directions that will encourage SIAST to take advantage of the opportunities that change brings.

1. An Appropriate and Progressive Mandate

Growing demands for all forms of education and training will continue to create pressures for SIAST to expand its mandate and program array in the future. Through the consultation process, the Review Committee heard several suggestions that would result in expanding SIAST's mandate or adding new programs and services within its current responsibilities.

In order to consider questions affecting SIAST's mandate in a consistent way, the Review Committee developed the following principles as a set of guidelines. SIAST's mandate should position the organization to:

- Enhance learning and career opportunities for students, including individuals seeking to attain qualifications to enter the workforce and those seeking to build on their current knowledge, skills and work experience.

- Focus on meeting critical needs within provincial and regional labour markets and essential to Saskatchewan's economy, social development and communities.

- Focus on its strengths and core expertise to support excellence in programs and services.

- Maintain credibility and a clear identity with the public groups that rely on SIAST programs and services.

- Contribute to developing an integrated and coherent education and training system where institutions and other service deliverers have complementary mandates and work together to ensure a continuum of learning opportunities.

- Be affordable and sustainable to those who finance SIAST including taxpayers, students, industry and other clients.

The following are aspects of SIAST's mandate which the Review Committee considered:

- Certificate and diploma programs
- Applied research
- Advanced technical credential
- Credit transfer and prior learning assessment and recognition
- Extension university programming
- Basic education
- Youth training and employment.

Certificate and Diploma Programs

The Review Committee examined whether SIAST should continue to have responsibility for a broad array of certificate and diploma programs in its role as the province's major source of curricula, learning resources and accreditation for technical education and training. Given the frequency with which some certificate programs are delivered off-campus in rural and northern Saskatchewan, the Review Committee weighed the possibility of having regional colleges assume responsibility on a provincial basis for certificate programs that have high off-campus usage. This arrangement could allow SIAST to focus on more advanced technical education at the second year or diploma level.

This option could have some benefits in reinforcing the important role of colleges and in encouraging responsiveness to northern and rural needs. The disadvantages include the high potential for fragmentation of curriculum development, loss of standardized approaches, and less public acceptance of credentials issued by colleges rather than a nationally recognized institution like SIAST. The option could also dilute the unique strength that colleges have in focusing on local or regional needs. On balance, the Committee concluded this option would not be in the province's best interests.

The ability of SIAST, within its existing mandate, to broker programs or to enter into agreements with other institutions to offer technical education and training in demand in the province, is a practical solution in some cases to extending the array of programs SIAST offers. SIAST currently has in place some arrangements of this nature and the Review Committee encourages future partnerships of this nature.

The Review Committee also considered whether SIAST should have an enhanced role in accreditation of training programs developed and offered by other institutions. Currently, SIAST certifies programs delivered by other institutions through academic partnerships and credit transfer. SIAST does not have an ability to assess and evaluate courses or programs offered by other institutions or agencies in fields where it does not itself have curricula and standards that can be used to establish quality and equivalency. The Review Committee concluded that developing a new accreditation role within SIAST is not desirable. This activity could be highly resource-intensive and is not a high priority compared to demands for access and an enhanced SIAST program array.

1.1 The Review Committee recommends that SIAST retain its current mandate as the province's primary public institution for delivery of technical education and training and continue to develop its role in curriculum development, certification of training, and brokerage of programs from other technical institutions, colleges or industry and professional bodies.

Applied Research and Technology Transfer

The emergence of applied research and technology transfer within technical institutes and colleges in Canada has occurred as an outgrowth of their expertise and linkages with industry and increasing technological complexity in vocational fields of study. Although applied

research and technology transfer are not an explicit part of SIAST's current mandate, the institution has entered into partnerships with industry and other organizations for these purposes. As mentioned earlier, SIAST is now involved in activities such as product testing, customization of software, and support for industry technological advisory services.

The Review Committee considered the formal inclusion of applied research and technology transfer within SIAST's mandate in light of these developments and the benefits that could result, such as updating of equipment and instructors' knowledge and enhanced program quality. There could also be benefits to the province and industry through having an applied research capacity that can be linked to training to support technological diffusion.

The Review Committee also had concerns about SIAST involvement in applied research and technology transfer. There is the potential for duplication and competition with other organizations with this mandate, and for resources and effort to be diverted from SIAST's main functions of education and training. With the pressures facing SIAST to enhance accessibility to technical education programs, the Review Committee believes it would be ill-advised for SIAST to redirect funds provided by the province for education and training to applied research and technology transfer.

In weighing the potential benefits and disadvantages, the Review Committee concluded that SIAST's current activities in applied research and technology transfer should be recognized, and the institution should have an ability to partner with industry and other organizations to meet Saskatchewan needs. However, applied research is not appropriate within SIAST as an end in itself or carried out without support from industry.

1.2 The Review Committee recommends that SIAST's involvement in applied research and technology transfer be recognized within its mandate. This recognition should make it clear that applied research and technology transfer are to be carried out at the request of industry and with industry support for projects or services. In the future, SIAST should pursue an exploratory approach with the universities and the Saskatchewan Research Council to identify complementary roles and linkages, possibly through a pilot project that takes advantage of the respective strengths and areas of expertise of these organizations.

Advanced Technical Education Credentials

The Review Committee found high interest among many stakeholders for enhanced options for learners to build on their technical education or work experience through acquiring higher level or advanced credentials. As noted earlier, there are few opportunities currently for graduates from SIAST to receive automatic credit transfer into university programs in Saskatchewan or elsewhere. The Review Committee notes that developments in neighbouring provinces in this area are significant to Saskatchewan as students are increasingly mobile and willing to invest in technical programs that will prepare them for well paying jobs with potential for career advancement.

The scale of Saskatchewan's post-secondary system and the potential for duplication of programming in the event that SIAST was granted an expanded mandate for advanced

credentials, such as applied degrees, were considered by the Review Committee in examining this issue. As well, the organizational implications for SIAST of having a mandate for credentials beyond the diploma level in terms of faculty qualifications, equipment, facilities and management focus were taken into account.

The Review Committee notes that SIAST and the University of Regina signed a Memorandum of Understanding in December 1999 to identify academic partnership options and their implications for each institution. As a tangible example of cooperation, it was announced at the time that graduates from SIAST's Integrated Resource Management (IRM) program will now be able to enter the University of Regina's biology program and receive full credit for their SIAST program. This means IRM graduates will be able to earn an environmental biology degree, with a practical and academic grounding, in four and a half years of study instead of the six years required to earn both credentials separately.

At this time, the Review Committee's assessment is that a collaborative model between SIAST and the universities is the preferred route for developing choices in advanced technical education that fit learners' aspirations and demands for higher levels of technical knowledge and skills from Saskatchewan employers.

1.3.1 The Review Committee recommends that SIAST enhance options for Saskatchewan people to attain advanced technical education credentials through collaboration with the province's universities and guided by the following principles:

- ***Programs leading to advanced credentials should be based on clearly identified needs in the labour market;***
- ***Industry and employers must be involved as active partners, for example, in committing to provide work experience for students, in demonstrating hiring intentions for graduates, and in participating in program development and design;***
- ***Programs should not result in "dead ends" for students where credentials are not recognized by post-secondary institutions or professional bodies; and***
- ***Programs should take advantage of the existing strengths and locations of institutions. For example, the new location of Wascana Campus adjacent to the University of Regina offers opportunities to better articulate and integrate programs.***

1.3.2 This collaboration should be facilitated by the establishment of a committee of senior representatives from the universities, SIAST and the Department of Post-Secondary Education and Skills Training to identify and develop system-wide strategies for enhancing options and career paths for students in technical fields of study.

1.3.3 It is further recommended that SIAST pursue an agreement with the University of Saskatchewan, similar to the one recently signed with the University of Regina, to collaborate in areas such as credit transfer between diploma and degree programs.

Credit Transfer and Prior Learning Assessment and Recognition (PLAR)

Collaboration among institutions to increase credit transfer and PLAR is quickly becoming one of the hallmarks of the type of flexibility and innovation that learners, industry and governments expect from the post-secondary system. The Review Committee notes that this capacity will become increasingly important with greater use of technology-enhanced learning in the province and elsewhere. Saskatchewan institutions will be challenged to articulate roles and relationships with respect to credit transfer and PLAR that clarify legitimate differences in the scope and content of their programs and areas where portability of learning can be enhanced.

With the growing importance of flexible approaches to recognition of knowledge and skills, the Saskatchewan Labour Force Development Board (SLFDB) has developed a proposal to establish a Saskatchewan Recognition of Prior Learning Centre. The centre would be managed by a consortium of partners including the SLFDB, SIAST, University of Regina, University of Saskatchewan, Post-Secondary Education and Skills Training, and the SLFDB's Racialized Canadians Reference Group. Its major objective would be to build capacity by providing a resource centre for the development of practitioners, candidates, employers, unions and support agencies for the applications of PLAR in a range of diverse settings.

The Review Committee believes these challenges can best be met through a coordinated provincial effort that places renewed priority and focus on improved credit transfer and PLAR. Because credit transfer and PLAR, in part, are academic issues, deans and faculty at SIAST and the universities have a critical role to play in making progress in these areas. Within SIAST, as the new curriculum model and program renewal are implemented, faculty must ensure that credit transfer is maximized within institute programs. As well, there are opportunities for SIAST to increase mobility and access to further skills training for students from private vocational schools.

1.4.1 The Review Committee recommends that SIAST and the Department of Post-Secondary Education and Skills Training cooperate with other post-secondary institutions in developing a provincial vision and action plan for increasing credit transfer on a system-wide basis. It is further recommended that deans and faculty at SIAST and the universities increase their collaboration at the program level to enhance credit transfer.

1.4.2 Within SIAST, the institution needs to ensure the transferability of applied and advanced certificates in certificate and diploma programs, and to work towards mobility and career laddering for students from private vocational schools.

1.4.3 With respect to PLAR, it is recommended that SIAST continue to improve its internal processes and to collaborate with the Department of Post-Secondary Education and Skills Training, other post-secondary institutions, and industry in developing a provincial vision and action plan for increasing prior learning assessment and recognition on a system-wide basis.

Extension University Programming

Another aspect of SIAST's relationships with the university sector is its partnership with the University of Saskatchewan and the University of Regina to deliver extension courses in Prince Albert and Moose Jaw. The Review Committee does not consider the brokerage of university programming to be a core function of SIAST given the institute's need to focus on technical education, training and preparation for employment. However, the partnerships with the University of Saskatchewan and the University of Regina serve a significant number of learners and represent cooperation between institutional sectors that should be encouraged.

With the pressures SIAST faces to use its resources to expand technical education and training, the Review Committee supports an approach to extension university programming that is cost neutral to SIAST. The partnerships should reflect the respective responsibilities of SIAST and the universities to be viable in the future.

1.5 The Review Committee recommends that SIAST continue to have provision in its mandate to broker university programming by agreement with a university and that SIAST and the University of Saskatchewan review the current agreement for extension programming to ensure an appropriate distribution of costs and revenues.

SIAST-University Collaboration

The development of an integrated, comprehensive post-secondary system in Saskatchewan depends on collaboration between SIAST and the province's two universities across a range of issues, including those mentioned above such as credit transfer, as well as other potential avenues for partnerships in areas such as program development and articulation, joint international initiatives, and sharing of human and physical resources. While there are a number of examples where collaboration is taking place, the Review Committee believes progress could be facilitated through greater focus and commitment from the institutions to working together to meet the needs of learners, employers and communities. The recent Memorandum of Understanding between SIAST and the University of Regina is a significant step in this regard.

1.6 The Review Committee recommends that SIAST and the two universities give increased priority to collaboration and partnerships to enhance programs and services, access and mobility for students, and use of resources.

Basic Education

Demands for basic education and related services will continue to grow in the future along with increasing pressures for technical education and training. The Review Committee questioned whether SIAST should continue to have responsibility for this function in light of the need for priority attention to both types of programming and the presence of other potential deliverers for basic education such as the K-12 system, community-based organizations and private vocational schools.

The inclusion of basic education within SIAST's mandate in the urban centres presents opportunities to realize a number of benefits for learners, the institution and the province:

- Transitions for basic education students into skills training programs can be facilitated. This benefit is particularly important for students who face barriers in access to training or require greater proficiency in basic skills to succeed in technical or vocational programs.
- Basic education options can be tailored as preparatory studies for entry to certificate and diploma programs, facilitating access for students and serving as a resource for technical programs.
- As an adult education institution, SIAST can offer learners an environment, instruction and support services tailored to the needs and circumstances of mature students.
- Having a single institution responsible for basic education delivery allows for the development of expertise and special services which could be more difficult to sustain if responsibility was fragmented among a number of organizations.

While alternative delivery options have a place within the range of basic education services, the Review Committee could not identify clear advantages, such as savings, enhanced expertise, or improved linkages to training that in combination would warrant a change in SIAST's mandate. The Review Committee concluded that basic education should remain within SIAST's mandate and given this responsibility, the institution should ensure that basic education is a fully integrated and valued part of the organization.

In order to realize the full benefits of having basic education within its mandate, the Review Committee believes that greater attention within SIAST needs to be focused on supporting learners to successfully complete their program of study and to prepare for entry to the labour force. SIAST records indicate that less than 15% of students completing an Adult 12 certificate enrol in SIAST certificate and diploma programs within the next year. While not all students want to enter technical programs, many are motivated by a desire to enhance their prospects in the labour market and would benefit from further training. Other students who are planning to enter the job market directly also need to have abilities and skills to be successful on the job, such as communication and problem solving skills and familiarity with expectations in the workplace.

1.7.1 The Review Committee recommends that SIAST retain its current mandate for basic education and related programs and services and ensure that this function is fully integrated and supported within the institution by making the following improvements:

- ***Develop bridging strategies to support transitions from basic education to skills training and certificate and diploma programs for learners who are seeking to become better qualified for jobs;***
- ***Incorporate employability skills into the basic education program within curriculum and instruction for academic subjects, and as a separate study unit for students who require these skills to augment their current training or work experience; and***

- ***Increase student retention rates through student services, assessment and counseling, appropriate instructional strategies suited to learner needs, and partnerships with First Nations and Métis institutions, K-12 education, and community organizations.***

1.7.2 The review of funding for training and employment services currently underway should take into account the need to support the integration of basic education within SIAST. Currently, basic education is funded as a separate program rather than through SIAST's base operating grant.

Youth Training and Employment

During the consultation process the Review Committee heard concerns about youth who do not enter any post-secondary education or training program after leaving high school. Some are not able to meet post-secondary entrance requirements; others may be undecided about their career options or have financial concerns about whether they can afford to continue their education. JobStart/Future Skills provides some opportunities for youth who are unemployed, provided they can be matched with an employer who is willing to hire and train them.

Short-term institutional training on its own does not have a good record of assisting youth in making transitions into stable employment. Best practices suggest that any initiatives for this purpose need strong connections to the workplace, skills in demand, and features that motivate and support youth such as career counseling.

SIAST's current mandate does not preclude the institution from offering special training initiatives for youth. However, the Review Committee believes the issue of youth employment and training is much broader than only a consideration of SIAST's mandate and must involve a number of partners in defining the problems of youth and developing solutions. Current progress between SIAST, the apprenticeship system and K-12 education to develop dual credit programs at the high school level for the apprenticeable trades and for entry to technical education programs is an example of the types of partnerships that should be pursued.

1.8 The Review Committee recommends that SIAST work with the K-12 education system, the Apprenticeship and Trade Certification Commission, First Nations and Métis organizations, industry and other agencies to address the needs of youth who are unemployed or are seeking training and work experience to enter the labour force. The Department of Post-Secondary Education and Skills Training should facilitate partnerships and forums to improve training and employment options for youth.

2. A Commitment to Accessibility

SIAST is facing its greatest challenges and opportunities in the area of accessibility for learners. With growing demands for access and high public expectations, SIAST must use its expertise and capacity for innovation and responsiveness to extend its programs and services within the constraints of the resources it is able to generate. Progress in implementing this

strategic direction will require SIAST to make choices about how best to serve a diversity of learners and to establish priorities for using its resources to support accessibility.

Expectations for Accessibility

As accessibility to post-secondary education and training is a key public policy goal of the government, SIAST and the Department of Post-Secondary Education and Skills Training need to develop a mutual agreement on SIAST's goals and plans for enhancing accessibility, and have a process in place for monitoring the results. SIAST's existing annual business planning process provides a mechanism for SIAST and the department to reach this agreement and to clarify expectations and ways to track performance.

2.1 The Review Committee recommends that SIAST and the Department of Post-Secondary Education and Skills Training jointly develop expectations for increasing access to SIAST programs in future years, taking into account the interplay of accessibility with labour market demands, the quality of programs and instruction, and the availability and use of resources. These expectations should be built into SIAST's business plan and performance monitoring.

Learner-Centred Orientation

A focus on accessibility throughout the organization as a strategic direction will require SIAST to explicitly adopt a learner-centred philosophy or orientation and to make changes in policies and delivery methods, where necessary and feasible, to maximize opportunities for learners. SIAST has already developed strong foundations in this direction through initiatives such as competency-based instruction, PLAR, the new curriculum model and the virtual campus plan. These foundations should continue to be integrated into organizational practice and used as stepping stones to greater flexibility to respond to different learning needs.

2.2 The Review Committee recommends that SIAST embody a commitment to learning within its vision, programs and operations and address the implications of a learner-centred orientation for the organization, with respect to issues such as methods for recognizing prior learning, instructional approaches, resources to support learning, hours of operation, and formats for delivery.

Technology-enhanced Learning

The Review Committee supports SIAST's plan and goals for incorporating technology-enhanced learning into its programs and services, and commends the organization for developing a thoughtful and realistic approach. SIAST has been proactive in proposing avenues for collaboration with other post-secondary institutions and partners to share resources and to work towards a provincial strategy for technology-enhanced learning. This collaborative approach and SIAST's plan should be given high priority within the institution because of its potential to support strategic directions for accessibility and labour market responsiveness.

In the future SIAST has the potential to provide valuable services to learners and employers that go beyond its own on-line or multi-media offerings. As technology-enhanced learning becomes more pervasive, Saskatchewan people will be confronted with a growing array of programs from around the world with varying degrees of quality, recognition, and applicability in the provincial context. There is a role for SIAST and other provincial post-secondary institutions to assist learners in selecting programs from elsewhere that are appropriate to their needs.

Worldwide expansion of technology-enhanced learning also offers SIAST opportunities to partner with out-of-province technical institutes or colleges to broker their programs in Saskatchewan or to collaborate in joint delivery. For example, SIAST could offer the lab or shop components of programs for learners at a distance, allowing Saskatchewan people to take advantage of on-line learning opportunities and reducing the need for SIAST to duplicate programs available from elsewhere.

2.3.1 The Review Committee recommends SIAST continue to give high priority to implementing its virtual campus plan, as part of the provincial technology-enhanced learning strategy and in collaboration with other post-secondary institutions in the province, to increase accessibility, quality, student retention, and responsiveness to the needs of learners, employers and communities.

2.3.2 It is also recommended that SIAST's virtual campus plan address the role of SIAST in providing support for learners who may wish to access technology-enhanced programs from other institutions, and in acting as a "clearing house" of information and advice about the thousands of on-line options that learners and employers could access. Opportunities to broker programs in Saskatchewan through partnerships with out-of-province institutions should also be pursued. SIAST should develop these activities in collaboration with other post-secondary institutions in the province, institutions within Western Canada, and in other jurisdictions where appropriate.

Multi-Site Delivery

The Review Committee believes that the expansion of multi-site delivery of SIAST programs throughout the province is particularly important in a province like Saskatchewan with a relatively small population dispersed over a large geographic area. As noted earlier, the majority of SIAST students currently relocate to pursue their studies. This adds to the cost of education, reducing financial accessibility for learners, and does not contribute to the sustainability of communities and their attractiveness as a business location.

There are clear constraints to off-campus delivery in terms of equipment and facilities and the costs to subsidize this delivery. In the future, technology-enhanced learning will contribute to increasing access to technical education and training at a distance from the home campuses of SIAST programs. While it is not feasible at the present time for SIAST to deliver many of its programs off-campus, particularly those at the diploma level, multi-site delivery in communities and workplaces should be enhanced to the extent possible and where there is demand.

2.4 The Review Committee recommends that SIAST enhance multi-site delivery of its programs and services throughout the province by maximizing delivery of courses and programs where people and jobs are located and where it is feasible considering the amount of student demand and the equipment and facilities required for delivery. It should be understood within SIAST that multi-site delivery is part of the core business of every program area and includes delivery anywhere in the province outside of a program's home location (i.e. off-campus in urban, rural and northern areas).

SIAST and Regional Colleges

SIAST and regional colleges have developed a unique partnership over several years to deliver training in rural and northern locations. For the most part, this partnership has been successful and satisfactory to both institutional sectors. The Review Committee is of the view that this partnership should be renewed by updating the existing protocol between the regional colleges and SIAST to reflect new circumstances and challenges, while preserving the benefits and strengths of the existing arrangement. As SIAST moves to enhanced multi-site delivery, its relationship with the regional colleges will become all the more important.

2.5 The Review Committee recommends that in order to enhance multi-site delivery in rural and northern areas, SIAST and the regional colleges revise their existing protocol agreement for brokerage of programs. A new agreement should:

- ***Establish a formal process for SIAST and the regional colleges to coordinate and integrate their needs assessment processes and jointly plan how identified needs can be addressed;***
- ***Clarify for regional colleges points of contact and channels of communication within the new SIAST organizational structure;***
- ***Provide ways for regional colleges to have input into the design, evaluation and updating of curriculum;***
- ***Identify appropriate and reasonable timelines, to be determined mutually by SIAST and the regional colleges, for SIAST to respond to requests from regional colleges;***
- ***Recognize that regional colleges may seek to broker programs from institutions other than SIAST, in addition to discussing their requirements with SIAST and giving SIAST an opportunity to respond before choosing an alternative provider;***
- ***Include avenues for SIAST and regional colleges to work together in making the best use of technology-enhanced learning and supporting learners at a distance;***
- ***Clarify responsibilities for students, both legal and programmatic;***
- ***Encourage cooperation between SIAST and the regional colleges in providing student services at the local level; and***
- ***Continue to require SIAST and regional colleges to notify each other in identifying and responding to training needs in their respective service areas.***

First Nations and Métis Education and Training

The Review Committee recognizes SIAST's current initiatives and partnerships that contribute to increasing education and training for First Nations and Métis peoples and their employment in good jobs. The importance to the province's future of addressing First Nations and Métis needs requires that SIAST continue to stress this direction by building on its equity plan and entering into new partnerships with First Nations and Métis institutions.

2.6 The Review Committee recommends that SIAST:

- ***2.6.1 Revise its current federation agreement with the Dumont Technical Institute to improve communication between the two organizations, build in an evaluation component, and encourage flexibility in program delivery and staffing to ensure student success (e.g. individual needs, content, time frame, delivery mode, appropriate assessment and screening of students).***
- ***2.6.2 Develop a new formalized arrangement with the Saskatchewan Indian Institute of Technologies (SIIT) that recognizes the institute's growth and evolution and includes mechanisms for credit transfer and greater planning and coordination of training, to avoid unnecessary duplication and recognize SIIT's role in programs where a significant First Nations perspective is important.***
- ***2.6.3 Develop a comprehensive strategy to improve responsiveness to the needs of First Nations and Métis students attending SIAST programs. The strategy should focus on achieving a representative student body and equity of outcomes for First Nations and Métis students across all technical fields. Given SIAST's province-wide mandate with multi-site delivery, First Nations and Métis representation should be considered in relation to the provincial and regional representation of First Nations and Métis peoples in the working age population.***

Education Equity

Although SIAST has made noteworthy progress in implementing education equity, the Review Committee supports additional measures and approaches to continue to build on SIAST's experience and commitment. An Equity Policy Framework for the Saskatchewan Training System has been developed as a guideline and reference for post-secondary training institutions, programs and services. For example, this policy encourages institutions to implement employment equity and to focus on transitions for learners between all levels of education and training.

Education, training and employment services for people with disabilities are being reshaped with the creation of a provincial Disability Action Plan and implementation of the new federal-provincial agreement on Employability Assistance for People with Disabilities. SIAST involvement in these processes is desirable given the institution's central role in training.

2.7 The Review Committee recommends that SIAST adopt the Equity Policy Framework developed as part of the Saskatchewan Training Strategy and address gaps in SIAST's current equity initiatives, including the implementation of employment equity. The provincial Office of Disability Issues and the Department of Post-Secondary Education and Skills Training should ensure that SIAST is involved in the Disability Action Plan and implementation of the agreement on Employability Assistance for People with Disabilities.

3. Responsiveness to the Labour Market

Ongoing change in the labour market and increasing technical and technological complexity on the job mean that the content and array of SIAST programs must continually evolve to remain relevant and responsive. In the 1990s, changes in Saskatchewan's economy and job market created unprecedented demands for SIAST to add a significant number of new programs. These trends will accelerate in the next decade. SIAST will more than ever before require a strategic approach to identifying training needs, financing new program development and delivery, updating existing programs, facilities and equipment, and partnering with others to ensure responses that are timely, affordable and matched with skills in demand.

Program Renewal

In affirming SIAST's mandate as the province's primary source of technical education and training, the Review Committee notes that this responsibility dictates that SIAST must continue to offer a broad program array that spans virtually every sector of the economy. While a degree of specialization is possible, through partnerships with other post-secondary institutions or industry associations, for the most part SIAST in the future will be expected to maintain a capacity to offer training across very diverse occupational fields. Both SIAST and the government, through its operating grant to SIAST, will need to make explicit choices about priorities for training to be supported through public funding.

3.1.1 The Review Committee recommends that SIAST maintain a program array that reflects the breadth and diversity of needs for technical skills and knowledge among private and public employers in Saskatchewan. In recognition that there are typically many more demands than can be met with the available resources, SIAST and the Department of Post-Secondary Education and Skills Training need to determine annually through the business planning process, the program array that can be reasonably offered with funding from the province's operating grant and tuition fees. Decisions about this "core" programming should be guided by the following priority areas that SIAST's technical education and training is expected to address:

- ***Key growth sectors of the economy that are generating new wealth and jobs;***
- ***Sustained demand for replacement workers within the existing labour force; and***
- ***Public and community services that could be negatively affected by skills deficiencies or shortages.***

3.1.2 SIAST should continue to pursue innovative partnerships or strategies that can help extend its ability to offer a comprehensive program array linked to the labour market without SIAST having to develop every new program on its own. These include, for example, brokerage and licensing arrangements with other post-secondary institutions, partnerships with employers to incorporate industry-sponsored training, and joint development of programs with partner institutions or agencies.

3.1.3 SIAST's new curriculum model offers future opportunities to realize some efficiencies in the development of new programs. In the new model, distinct stand-alone units of instruction may be used for credit towards several different program credentials.

Extension Policy

Implementation of the approach recommended above will assist in defining SIAST's core programming in relation to other activities that, while meeting important training needs, are expected to be self-financing. The development of a clear and consistent policy for pricing these activities, generally classed as extension at the present time, will ensure fairness and transparency for learners, employers and others who are paying for training.

3.2.1 The Review Committee recommends that SIAST develop a fair and consistent policy for pricing extension activity that distinguishes core programs that should be available at a province-wide tuition fee, either on or off-campus, and other market-driven or industry training that should be offered on a cost-recovery basis. Consultation with regional colleges in developing the policy is recommended since the regional colleges are the primary delivery agents for SIAST's off-campus programs in rural and northern areas.

3.2.2 Because the policy will define those SIAST activities to be subsidized by provincial funding, it should be submitted to the Minister of Post-Secondary Education and Skills Training for approval. A timeline of implementation in the 2001-02 academic year is further recommended.

Facilities and Equipment

SIAST programs require up-to-date facilities and equipment in order to be relevant and responsive to provincial labour market demands and to meet industry and professional standards for accreditation. SIAST has adopted various strategies to maintain the currency of its learning resources, including leasing of facilities and equipment and partnerships with industry that give instructors and students access to equipment used in Saskatchewan workplaces. These approaches have been successful but on their own are not sufficient to keep pace with needs for renewal of facilities and equipment due to changing technology, demands for new programs, and ongoing maintenance.

SIAST has drawn on funds from its operating grant to finance essential upgrades and new infrastructure. This has reduced resources for other priorities, such as enhancing access for students, and has not allowed SIAST to take a long-term approach to renewing its infrastructure. In order to renew its equipment, such as labs, shops and other teaching

resources on a ten-year cycle, it is estimated SIAST would require $6 million per year. At the present time, SIAST does not receive a separate allocation from the province in its annual budget for these purposes.

3.3 The Review Committee recommends that the Department of Post-Secondary Education and Skills Training and the Department of Finance review current arrangements for supporting SIAST's capital and equipment with a view to establishing a planned renewal and a funding allocation for this purpose. This examination should also consider the approval process for SIAST's expenditures on capital and equipment. SIAST's annual business plan should include a capital plan to identify the requirements to implement program plans.

Labour Market Development Planning

SIAST's responsiveness to labour market needs will depend on working with other partners to gather and analyze information about changing skills requirements in Saskatchewan, to translate these requirements into specific training needs, and to plan and deliver collaborative solutions. Several planning processes have been initiated in the province to facilitate the matching of training with labour market demands. For example, SIAST conducts annual training needs assessments in the four cities, while regional colleges do the same in their service areas. The Sector Partnerships Program brings industry and institutional representatives together to undertake human resource planning and training needs identification. In addition, many other organizations, including the Department of Post-Secondary Education and Skills Training, carry out labour market studies and have ongoing contacts with employers looking for workers with specific skills.

The Review Committee is supportive of these activities which all contribute to better understanding of the labour market. They could be strengthened by greater coordination and synthesis of information and intelligence about labour market developments and training needs from a wide variety of sources. A more coordinated approach could also reduce duplication and contribute to articulating a province-wide perspective.

3.4.1 The Review Committee recommends that SIAST, along with other partners and with leadership from the department, develop processes at the provincial and sectoral levels to undertake labour market development planning and needs assessment, including forecasting of occupational and skills requirements, identifying emergent training demands, and creating potential solutions to meet the pressures.

The Department of Post-Secondary Education and Skills Training should take the lead in facilitating this process and involving other partners such as industry, First Nations and Métis organizations, regional colleges, the universities, the Apprenticeship and Trade Certification Commission, Human Resources Development Canada and other provincial departments. The feasibility and usefulness of conducting in-depth needs assessments in a few targeted industry sectors each year could be tested on a pilot basis. A sectoral approach to labour market development and training needs assessment should be linked to industry sectors within the province's economic development strategy.

Linkages to Major Employers, Industry Organizations and Economic Development Initiatives

With its transformation into a province-wide institution, SIAST needs to develop corresponding relationships with other provincial labour market partners at the senior strategic level. These relationships could facilitate coordinated planning and programming, as well as providing SIAST with a broad perspective on labour market issues from the point of view of partner organizations.

3.5.1 The Review Committee recommends that SIAST develop increased linkages with major employers and industry organizations at a senior level to provide forums for information sharing, discussion of labour market and training issues, and avenues for cooperation. Provincial organizations such as the Crown Investments Corporation, the Canadian Federation of Independent Business, the Saskatchewan Chamber of Commerce, and the Saskatchewan Labour Force Development Board should be consulted to determine their preferences for regular liaison with SIAST Board members and senior managers.

3.5.2 The Department of Post-Secondary Education and Skills Training should facilitate similar linkages between SIAST and key provincial government departments with responsibility for employment or industry sectors that have significant skills training needs, such as the health sector. Liaison with the Department of Economic and Cooperative Development at the senior level is particularly important to coordinate SIAST activities with provincial economic development initiatives.

3.5.3 The Review Committee recommends that SIAST work closely with the new Apprenticeship and Trade Certification Commission and Trade Boards to develop and deliver institutional training that supports the apprenticeship system in moving towards greater industry involvement and more innovative and decentralized delivery. A new protocol agreement between SIAST and the Apprenticeship and Trade Certification Commission should be developed to establish clear roles and responsibilities and lines of communication for an effective partnership.

SIAST and Agricultural Programming

The agricultural sector presents unique challenges for post-secondary education and training in the province. The Review Committee notes that many institutions and agencies are involved in providing a wide range of information and counseling services and training programs to farmers and other people working in the agricultural sector. These organizations include SIAST, the universities, regional colleges, federal and provincial departments, industry associations and private companies, as well as others. With changes occurring in agriculture, there are growing needs to assist farmers seeking to become more competitive, to diversify their operations, to find off-farm employment, and to make transitions into alternative careers.

There is potential for SIAST and other agencies to expand their outreach services to people engaged in farming and to those living in rural areas who are endeavouring to adapt to changes affecting their livelihood, for example, through assessment of skills for credit recognition or offering additional specialized training courses. With the number of agencies involved in agricultural programming, enhancements should be planned in a coordinated fashion utilizing the respective strengths and expertise of various partners.

3.6 The Review Committee recommends that SIAST participate in processes to better coordinate efforts of the many agencies and institutions involved in training within the agricultural sector serving farm families and other specialized workers, and to address gaps in current responses at provincial and regional levels. The Departments of Post-Secondary Education and Skills Training and Agriculture and Food should take the lead in facilitating this process.

4. Organizational Effectiveness

In integrating the recommendations of this review into its planning and operations, SIAST will need to strengthen its organizational processes and communications. This development should reinforce SIAST's new provincial focus and contribute to managing change in an orderly and creative way that engages faculty, students and the public. The Review Committee recognizes that SIAST has many foundations already in place; the following recommendations are intended to give further direction and impetus to increasing organizational effectiveness.

SIAST Vision and Business Plan

SIAST's current vision statement and strategic plan were drafted in the early 1990s taking into account conditions and challenges facing SIAST at that time. The Review Committee believes creating a new vision statement and strategic plan, reflecting the strategic directions proposed within this report, is the first step towards implementing the recommendations of the review. The business planning process is the vehicle to incorporate the directions into SIAST's priorities, budgeting, operations, and performance monitoring. The involvement of SIAST staff in these processes is important to tap their expertise and to build commitment. The process used by SIAST to involve staff in implementing the new provincial structure is one approach that has been shown to be workable.

4.1 The Review Committee recommends that SIAST integrate recommendations from this report into its vision and multi-year business planning, and develop appropriate performance indicators to monitor and report on progress in achieving its goals and implementing recommendations of the review. SIAST is encouraged to build on the process that was implemented during the organizational restructuring process to involve employees in these activities.

Government-SIAST Relationships

The Review Committee was originally established with senior representatives from SIAST and the Department of Post-Secondary Education and Skills Training to engender a shared understanding of strategic directions for the institution. This approach and the review's recommendations have contributed to establishing a renewed relationship between the government and SIAST. The elements have been put in place to implement a relationship based on mutually agreed upon expectations, effective planning, performance management and reporting.

4.2 The Review Committee recommends that SIAST and the Department of Post-Secondary Education and Skills Training establish a renewed relationship based on accountability and performance management. SIAST's business plan should be the foundation for developing a relationship based on clear expectations with a focus on outcomes. SIAST and the Department of Post-Secondary Education and Skills Training should work together closely in developing an accountability and performance management framework, and in negotiating expected outcomes on an annual basis as SIAST updates its business plan. The recommendations of this review should also be integrated into the department's strategic plan.

Human Resources and Organizational Development

The Review Committee has identified SIAST's staff as one of the organization's greatest strengths in positioning the institution to succeed in the future. As such, SIAST needs to continue to invest in its employees and to involve them in shaping the organization. Professional development and updating of knowledge and skills is especially critical to maintain program relevance for learners and employers.

4.3 The Review Committee recommends that SIAST develop enhanced opportunities for professional development for SIAST faculty and staff to maintain the currency of their knowledge and skills in relation to changes in technology and the workplace. Further, it is recommended that SIAST continue to involve employees in planning and decision-making about SIAST's ongoing development and the changes needed to respond to emerging demands for education and training in Saskatchewan.

Communications with Students

SIAST students obviously have a high stake in the extent to which SIAST demonstrates a commitment to learner access and success and labour market relevance. Student associations at each campus currently provide an important avenue for students to have a voice in issues affecting them. The Review Committee believes that since students are among SIAST's most important customers, the institution should continue to seek their views and to support student bodies. For example, SIAST may wish to explore the potential for students to have input into curriculum and program design, and faculty evaluation and to provide students with the opportunity to select representatives to program review committees.

4.4 The Review Committee recommends that SIAST foster student input and involvement in SIAST's future development and ongoing operations. Student participation and influence could be strengthened by an institute-wide mechanism for students to represent their views.

Marketing and Communications with the Public

Marketing and communications with the public are essential to ensure that people who could benefit from SIAST programs and services are aware of these opportunities. At another level, the post-secondary system as a whole has a responsibility to publicize the value of education and training to individual well-being and the future of the province.

4.5 The Review Committee recommends that SIAST continue to implement the communications and marketing plan developed by the SIAST Board. In addition, the Review Committee recommends that SIAST, the regional colleges, the Apprenticeship and Trade Certification Commission, and the Department of Post-Secondary Education and Skills Training coordinate their communication strategies to raise awareness of the value of post-secondary education and training and career opportunities in technical and trades occupations, and to ensure consistency of messages and enhanced visibility for all parties.

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SIAST, Virtual Campus Funding Strategy, Discussion Paper, Presentation to Saskatchewan Post-Secondary Education and Skills Training, February 11, 1999.

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APPENDIX A

TERMS OF REFERENCE

Introduction:

In accordance with the legislative requirements, under The Saskatchewan Institute of Applied Science and Technology Act, a committee is to be appointed to review and report on the mandate of SIAST as set out in the legislation and any other matters that concern the Act.

Purpose:

The 1998 SIAST Review will focus on positioning SIAST to meet the labour market needs of the next millennium, SIAST's future mandate in light of emerging labour market trends, and to better position SIAST to support the goals of the Saskatchewan Training Strategy.

The 1998 SIAST Committee of Review will report to the Minister of Post-Secondary Education and Skills Training on the findings of the review and provide recommendations to better position SIAST for the 21st century. In the development of the recommendations the Committee of Review may:

- Undertake an environmental scan of the socio-economic climate of Saskatchewan including emerging labour market needs;
- Consult with representatives of SIAST faculty and staff, students, union, business and industry, and other key stakeholders;
- Examine the impact of the Saskatchewan Training Strategy on SIAST and how it has/is required to change its role; and,
- Review and report on any other matter the committee may deem necessary as a result of information coming to its attention during the course of the review.

Committee:

The following persons will be appointed as a committee to be known as the 1998 SIAST Committee of Review, which committee shall review and report on the mandate of the Saskatchewan Institute of Applied Science and Technology:

Ms. Lily Stonehouse, Assistant Deputy Minister, Post-Secondary Education and Skills Training
Ms. Shelley Hoover, Executive Director, Institutions Branch, Post-Secondary Education and Skills Training
Ms. Donna Krawetz, Executive Director, Special Projects Branch, Post-Secondary Education and Skills Training
Mr. Paul Dudgeon, Chair, Saskatchewan Institute of Applied Science and Technology Board of Directors, and
Dr. Art Knight, President, Saskatchewan Institute of Applied Science and Technology.

Ms. Stonehouse will serve as chair of the committee.

APPENDIX B

LIST OF CONSULTATION WORKSHOPS, MEETINGS AND INVITATIONS FOR INPUT

Consultation Workshops and Meetings

Association of Saskatchewan Regional Colleges, regional college board chairs and regional college CEOs; December 9, 1999

Canadian Federation of Independent Business, Ms. Marilyn Braun, Director, Saskatchewan Provincial Affairs; June 29, 1999

Crown Investments Corporation, Mr. James Hoffman, Senior Analyst, Strategic Planning; June 29, 1999

Dumont Technical Institute (DTI), Ms. Lisa Wilson, A/Principal; September 30, 1999

Federation of Saskatchewan Indian Nations (FSIN), Ms. Paula Acoose; September 30, 1999

Gabriel Dumont Institute (GDI); September 30, 1999

League of Educational Administrators, Directors and Superintendents (LEADS), Ms. Pat Dickson, Executive Director; Mr. Gerry Guillet, Region 5 Representative; Mr. David Steele, Region 3 Representative; Mr. Bill MacFarlane, Past President; June 30, 1999

Métis Employment and Training of Saskatchewan Incorporated (METSI), Ms. Bonnie Starr; September 30, 1999

Post-Secondary Education and Skills Training, Senior Management Committee; March 5, 1999; February 1, 2000; February 14, 2000

Regional Colleges Board Chairs, consulted at ASRC meeting; December 9, 1999

Regional Colleges CEOs and SAOs; November 5, 1999

Saskatchewan Agriculture and Food, Ms. Susie Miller, Assistant Deputy Minister; January 27, 2000

Saskatchewan Economic and Co-operative Development, Mr. Robert Greenwood, Assistant Deputy Minister; August 27, 1999

Saskatchewan Government Employees Union, Post-Secondary Education Committees; December 14, 1998; December 9, 1999

Saskatchewan Indian Federated College (SIFC), Mr. Del Anaquod; September 30, 1999

Saskatchewan Indian Institute of Technologies (SIIT), Ms. Joan Greyeyes; September 30, 1999

Saskatchewan Indian Training Assessment Group (SITAG), Mr. Roger Schindelka; September 30, 1999

Saskatchewan Institute of Applied Science and Technology (SIAST) Board of Directors; March 5, 1999; November 26, 1999

Saskatchewan Labour Force Development Board (SLFDB), SLFDB members; June 22, 1999

Saskatchewan Research Council, Mr. Jim Hutchinson, President; September 30, 1999

SIAST Faculty and Staff, Kelsey and Woodland Campuses; March 23, 1999

SIAST Faculty and Staff, Palliser and Wascana Campuses; March 19, 1999

SIAST Senior Management Assembly; March 5, 1999; December 10, 1999

SIAST Senior Management Council; November 26, 1999

SIAST Students/Students Association Executive, Kelsey Campus; March 23, 1999; January 17, 2000
SIAST Students/Students Association Executive, Palliser Campus; March 19, 1999; January 20, 2000
SIAST Students/Students Association Executive, Wascana Campus; March 19, 1999; January 20, 2000
SIAST Students/Students Association Executive, Woodland Campus; March 23, 1999; January 19, 2000
Social Services, Office of Disability Issues, Mr. Jim Brown, Senior Policy Advisor; June 21, 1999
University of Regina, Dr. David Barnard, President; December 20, 1999
University of Regina, Mr. Bob McCulloch, Vice-President Academic; July 9, 1999
University of Saskatchewan, Dr. Michael Atkinson, Vice-President Academic; July 6, 1999
University of Saskatchewan, Mr. Peter MacKinnon, President; December 10, 1999

Invitations for Input

Assistant Deputy Ministers Forum on Human Services

Saskatchewan Education, Mr. Ken Horsman
Saskatchewan Education, Mr. Bill Werry
Saskatchewan Education, Ms. Gillian McCreary
Saskatchewan Education, Ms. Edith Nagy
Municipal Affairs, Culture & Housing, Mr. Peter Hoffman
Public Service Commission, Ms. Clare Isman
Saskatchewan Health, Ms. Louise Watley
Saskatchewan Health, Ms. Marlene Smadu
Saskatchewan Health, Mr. Jim Simmons
Saskatchewan Justice, Ms. Betty Ann Pottruff
Saskatchewan Justice, Mr. Terry Lang
Saskatchewan Justice, Mr. Doug Moen
Intergovernmental & Aboriginal Affairs, Mr. Ernie Lawton
Intergovernmental & Aboriginal Affairs, Ms. Mary Tkach
Women's Secretariat, Ms. Jan Joel
Women's Secretariat, Ms. Faye Rafter
Cabinet Planning Executive Council, Ms. Brenda Righetti
Northern Affairs, Mr. Richard Turkheim
Saskatchewan Social Services, Ms. Bonnie Durnford
Saskatchewan Social Services, Ms. Susan Hetu
Saskatchewan Social Services, Mr. Duncan Fisher
Office of Disability Issues, Mr. Daryl Stubel
Office of Disability Issues, Mr. Jim Brown
Economic & Cooperative Development, Mr. Bryon Burnett
Saskatchewan Labour, Ms. Cheryl Hanson
Post-Secondary Education and Skills Training, Mr. Ken Alecxe

Municipal Affairs, Culture & Housing, Ms. Peggy Clark
Saskatchewan Finance, Mr. Neil Yeates
Saskatchewan Finance, Ms. Raelynn Douglas
Environment & Resource Management, Ms. Dorothy MacAuley

Apprenticeship

Apprenticeship Board, Mr. George Pellerin, Chairperson

Industry and Professional Associations

Petroleum Services Association of Canada (PSAC), Mr. Ray Frehlick, Chairman
Saskatchewan Economic Development Association (SEDA), Mr. Larry Lang, Executive Director
Saskatchewan Mining Association, Mr. Phil Reeves, Executive Director
Small Explorers and Producers Association of Canada (SEPAC), Mr. Carl Henneberg, Saskatchewan Chairman
The Canadian Association of Oilwell Drilling Contractors (CAODC), Mr. Bob Geddes, President
Hotels Association of Saskatchewan, Mr. Bill Nelson
Hotels Association of Saskatchewan, Mr. Ken MacNair, President
Regina Academy of Chefs & Cooks, Mr. Greg Quarrie
Registered Psychiatric Nurses Association of Saskatchewan, Mr. Roger Bitschy, President
Registered Psychiatric Nurses Association of Saskatchewan, Ms. Marion Regier, Executive Director
Road Builders & Heavy Construction Association of Saskatchewan, Mr. Manley R. McLachlan, Executive Director
Saskatchewan Craft Council, Mr. Terry Schwalm, Executive Director
Saskatchewan Applied Science Technologists & Technicians, Mr. John R. Walker, President
Saskatchewan Association of Automotive Repairers, Mr. Mike Mario
Saskatchewan Association of Licensed Practical Nurses, Ms. Ede Leesen, Executive Director
Saskatchewan Driver Educators Association, Mr. Bruno Klassen, President
Saskatchewan Home Builders Association, Mr. Ken McKinlay, Executive Director
Saskatchewan Registered Nurses' Association, Ms. Rivie Seaberg, Executive Director
Saskatchewan Restaurant & Food Services Association, Mr. Michael van Grondelle, Executive Director
Saskatchewan Tourism Education Council, Mr. Jim Kilkenny, Chairman
Saskatchewan Trade & Export Partnership, Ms. Anne Rose, President & CEO
Saskatchewan Trucking Association, Mr. Warren K. Smith, General Manager
Saskatchewan Automobile Dealer's Association, Mr. Ben R. Holden, President
The Saskatchewan Child Care Association, Ms. Mary Ann Knoll, Executive Director
Tourism Industry Association of Saskatchewan Inc, Mr. Steve McLellan, Executive Director
Transportation Careers Development Centre, Mr. Gord Martin, Manager/Training

Government/Crowns

Agriculture & Food, Mr. Terry Scott, Deputy Minister
Economic & Co-operative Development, Mr. Fraser Nicholson, Deputy Minister
Education, Mr. Craig Dotson, Deputy Minister
Energy & Mines, Mr. Ray Clayton, Deputy Minister
Environment & Resource Management, Mr. Stuart Kramer, Deputy Minister
Finance, Mr. Bill Jones, Deputy Minister
Health, Mr. Con Hnatiuk, Deputy Minister
Highways & Transportation, Mr. Brian King, Deputy Minister
Intergovernmental & Aboriginal Affairs, Mr. Brent Cotter, Deputy Minister
Justice & Attorney General, Mr. John Whyte, Deputy Minister
Labour, Ms. Sandra Morgan, Deputy Minister
Municipal Affairs, Culture & Housing, Mr. Ken Pontikes, Deputy Minister
Northern Affairs, Mr. Alex Campbell, Deputy Minister
Public Service Commission, Ms. Wynne Young, Chair
Saskatchewan Communications Network (SCN), Mr. Jim Benning, President
Saskatchewan Energy, Mr. Ron Clark, President
Saskatchewan Opportunities Corporation, Mr. Zack Douglas, President
Saskatchewan Power, Mr. John Wright, President
Saskatchewan Water Corporation, Mr. Ron Styles, President
SaskTel, Mr. Don Ching, President
Saskatchewan Government Insurance, Mr. Larry Fogg, President
Social Services, Ms. Glenda Yeates, Deputy Minister
Saskatchewan Property Management Corporation, Mr. John Law, President
Saskatchewan Transportation Corporation, Mr. Jim Hadfield, President
Women's Secretariat, Ms. Fay Rafter, Executive Co-ordinator

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Saskatchewan School Trustees Association (SSTA), Mr. Craig Melvin, Executive Director
Saskatchewan Teachers' Federation (STF), Dr. Derwyn Crozier-Smith, General Secretary

Métis

Métis Nation of Saskatchewan, Mr. Clem Chartier, President

Municipalities

City of Estevan, Mr. John Len, Mayor
City of Lloydminster, Mr. Ilston Plant, Mayor
City of Melfort, Mr. Desmond Henderson, Mayor
City of Melville, Mr. Michael K. Fisher, Mayor
City of Moose Jaw, Mr. Ray Boughen, Mayor
City of North Battleford, Mr. Wayne Ray, Mayor
City of Prince Albert, Mr. Don Cody, Mayor

City of Regina, Mr. Doug Archer, Mayor
City of Saskatoon, Mr. Henry Dayday, Mayor
City of Swift Current, Mr. Paul Elder, Mayor
City of Weyburn, Mr. Don Schlosser, Mayor
City of Yorkton, Mr. Ben Weber, Mayor

Northern Labour Market Committee

Northern Labour Market Committee, Mr. Al Rivard, Co-Chair
Northern Labour Market Committee, Mr. Alex Campbell (DM, Northern Affairs), Co-Chair
Northern Labour Market Committee, Ms. Julia Ewing, Co-Chair

Private Vocational Schools

Academy of Learning – Regina, Ms. Veronica Johnson, Principal
Academy of Learning – Yorkton, Mr. Patrick Chopik, Principal
Avant-Garde College of Esthetics, Ms. Connie Neufeld, Principal
CDI College of Business & Technology – Regina, Mr. Peter Hubbs, Principal
CDI College of Business & Technology – Saskatoon, Mr. Doug Freeman, Principal
Deloitte & Touche, Ms. Gwen Lepage, Principal
H & R Block Canada Inc., Ms. Maureen Guliov, Principal
MARCA College of Hairstyling & Esthetics Day Spa, Ms. Janice Istace, Principal
Marvel Beauty School & Salon, Ms. Shellie Williams, Principal
Marvel Beauty School, Ms. Bonnie Noble, Principal
McKay Tech Inc., Mr. Gordon McKay, Principal
Richards Beauty College, Ms. Debra Forsberg, Principal
Saskatoon Business College Ltd., Mr. Barry Chapman, Principal
T & H Academies Career Training Centre, Mr. Harvey Moran, Principal
Universal Career College, Ms. Marie Kent, Principal
Western College of Remedial Massage Therapies Inc., Mr. Wayne B. Baiton, Principal

Regional Intersectoral Committees

ADMs Forum, Mr. Bill Werry, Executive Director
Moose Jaw Regional Committee, Mr. Don Mitchell, Regional Community Development Coordinator
Nipawin-Melfort Regional Committee, Mr. Peter Waldbillig, RIC Coordinator
North Battleford Regional Committee, Mr. Jeff Christiansen, Community Services Consultant
Northern Regional Committee, Ms. Valendie Lathlin-Buck, Community Development Coordinator
Prince Albert Regional Committee, Ms. Paige Finney, RIC Coordinator
Regina Regional Committee, Ms. Donna Benesh, Regina Inter-Agency Coordinator
Saskatoon Regional Committee, Mr. Dennis Chubb, RIC Coordinator
Southeast Regional Committee, Ms. Bernice Puritch, Regional Coordinator
Southwest Regional Committee, Ms. Liz Gordon, RIC Coordinator

Regional Economic Development Authority

Big Gully REDA, Mr. Ken Reiter, Acting EDO
Border REDA, Mr. Jimmy Pollard, Economic Development Officer
Carlton Trail REDA Inc., Ms. Wendy Smith, Interim CEO
Cornerstone REDA, Ms. Judith Riddell, Manager
Cypress Hills REDA Co-operative Inc., Ms. Marilyn Neudorf, Economic Development Officer
Eden REDA, Ms. Judy Childs, Economic Development Officer
Entrepreneurs 2000 REDA Inc., Ms. Laurie Shalley, CEO
Etomami Valley REDA Inc., Ms. Yvonne Peters
Gateway REDA, Mr. Jeff Cole, Economic Development Officer
Good Spirit REDA, Mr. Phil Devos, Secretary-Treasurer-Manager
Great River Lakes REDA, Ms. Joan Corneil, Economic Development Officer
Long Lake REDA, Mr. Patrick Weichel, Economic Development Officer
Mainline REDA Inc., Mr. Larry Lang, General Manager
Midwest REDA, Mr. Kent Dubriel, Economic Development Officer
Moose Jaw REDA, Mr. James Leier, Economic Development Officer
Northwest REDA, Mr. Pat Pylot, Marketing Manager
Prairie to Pine REDA Inc., Mr. Robert Colliar, Chairperson
Red Coat REDA, Mr. Gord Bell, Chairperson
Regina REDA, Mr. M. L. (Marty) Klyne, President & Chief Operating Officer
Saskatoon REDA, Mr. John Hyshka, Director of Business Development
South East REDA, Ms. Catherine Kerr, Secretary/Manager
South Parkland REDA, Mr. John Persson, Economic Development Officer
Southwest REDA, Mr. Terry Brodziak, General Manager
The Prince Albert REDA, Mr. Graham Halliday, General Manager
Touchwood Hills REDA, Mr. Steve Boha, Chairperson
West Central REDA Inc., Mr. Kevin Fruhstuk
Yellowhead REDA Inc., Ms. Joelene Kotzer-Mitschke, Economic Development Officer

Saskatchewan Chamber of Commerce

Saskatchewan Chamber of Commerce, Ms. Mary Ann McFadyen, Executive Director
Education Committee, Mr. Art Whetstone and Mr. Allan Solheim, Co-Chairs

Seniors

Seniors Mechanism, Ms. Linda Blach, Executive Director

Youth

Provincial Action Committee on the Economy (PACE), Ms. Laurie Shalley, Co-Chair (c.c. Honourable Janice MacKinnon - Economic & Co-operative Development, Co-Chair)